

Figure 1

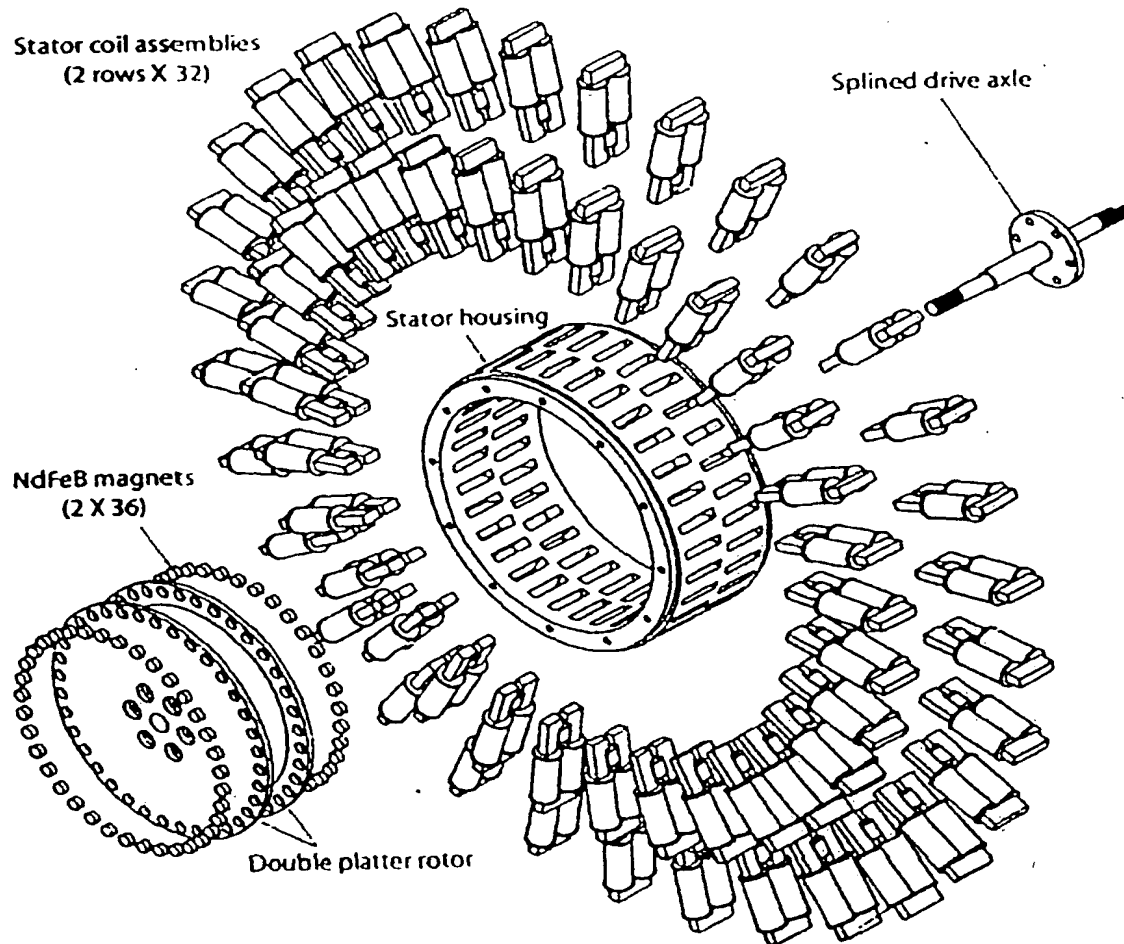


Figure 2.

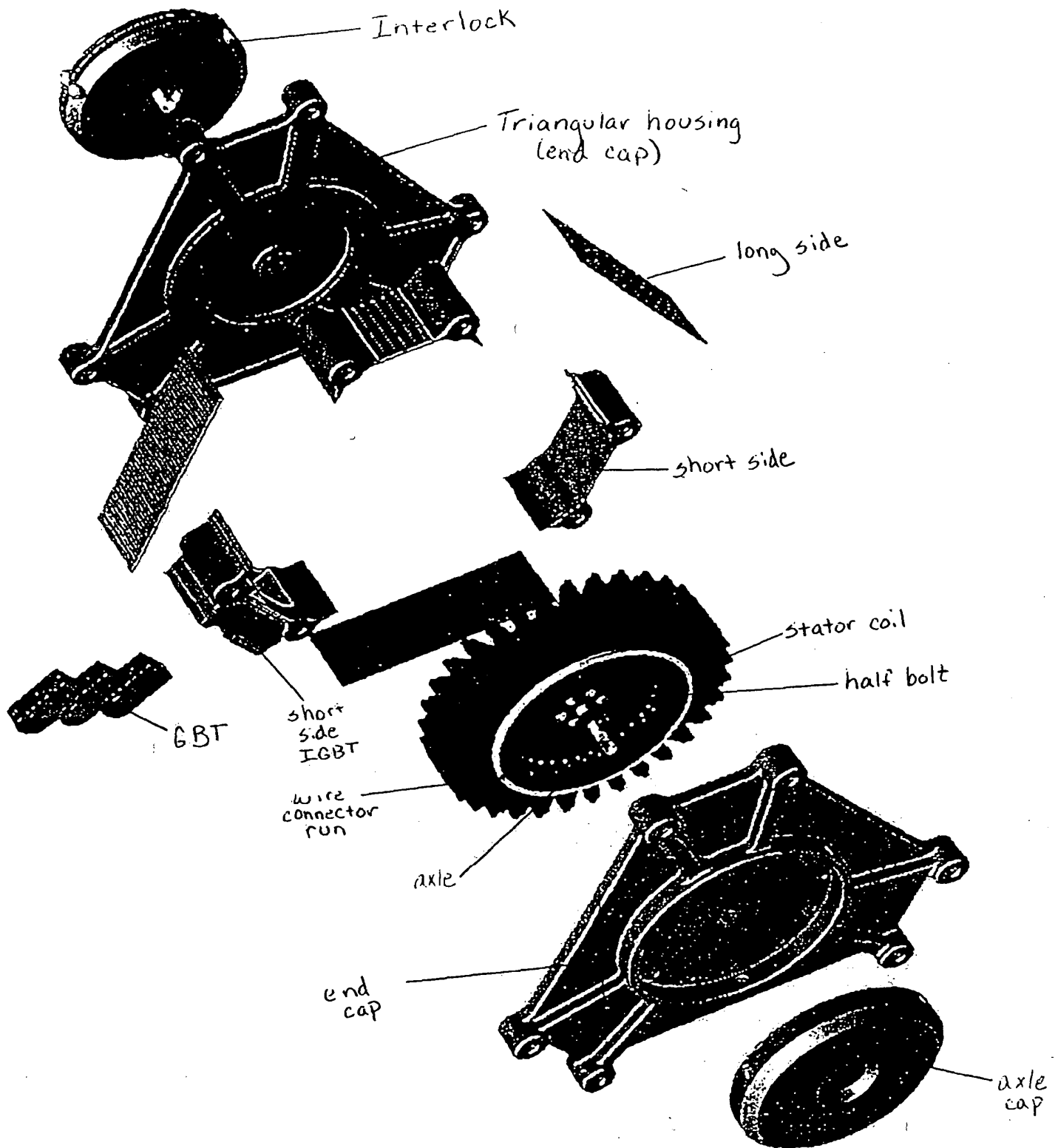
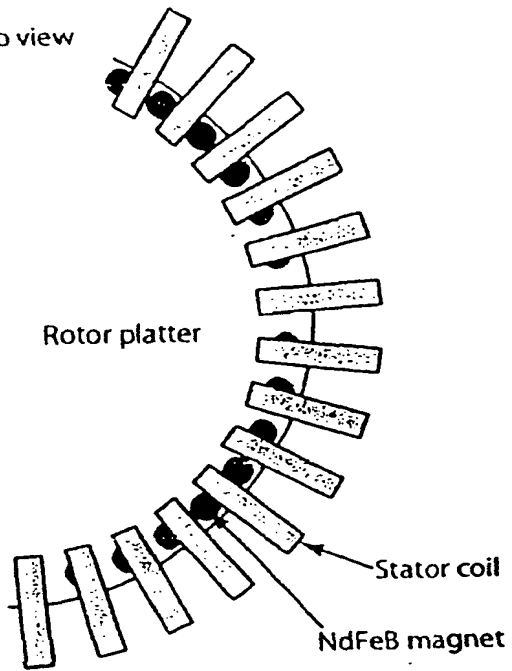
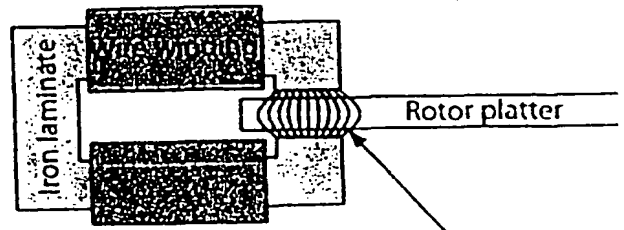


Figure 3

(a) Top view



(b) Stator coil side view



(c) Edge view

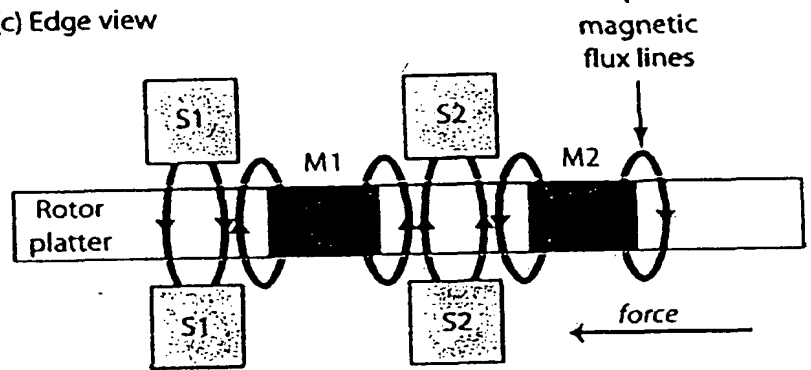


Figure 4

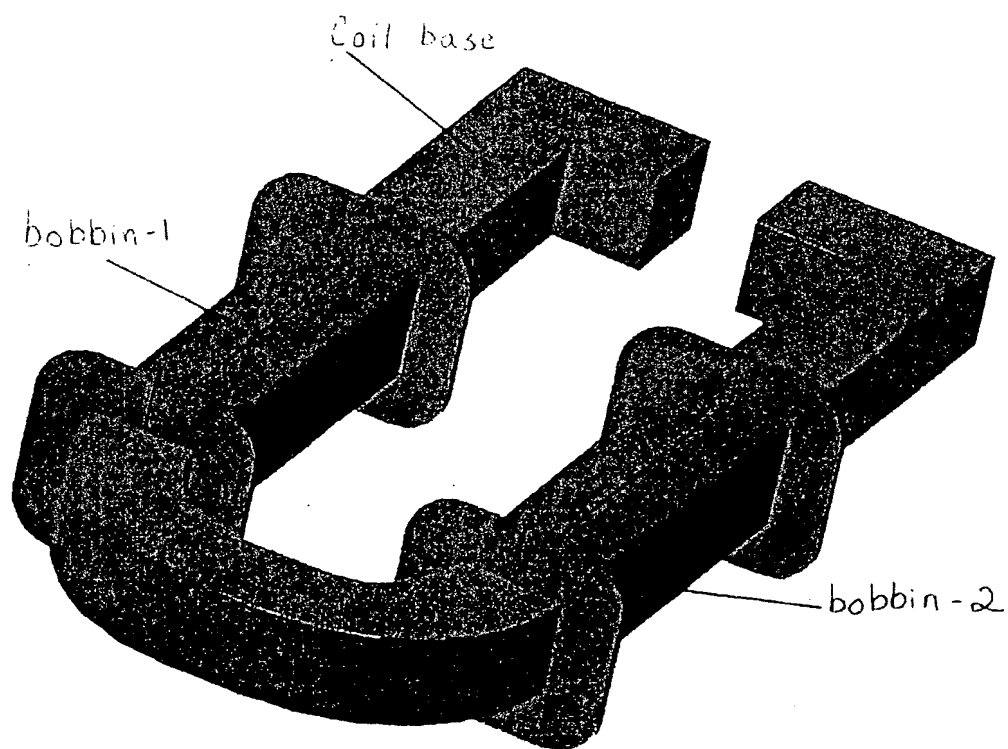


Figure 5

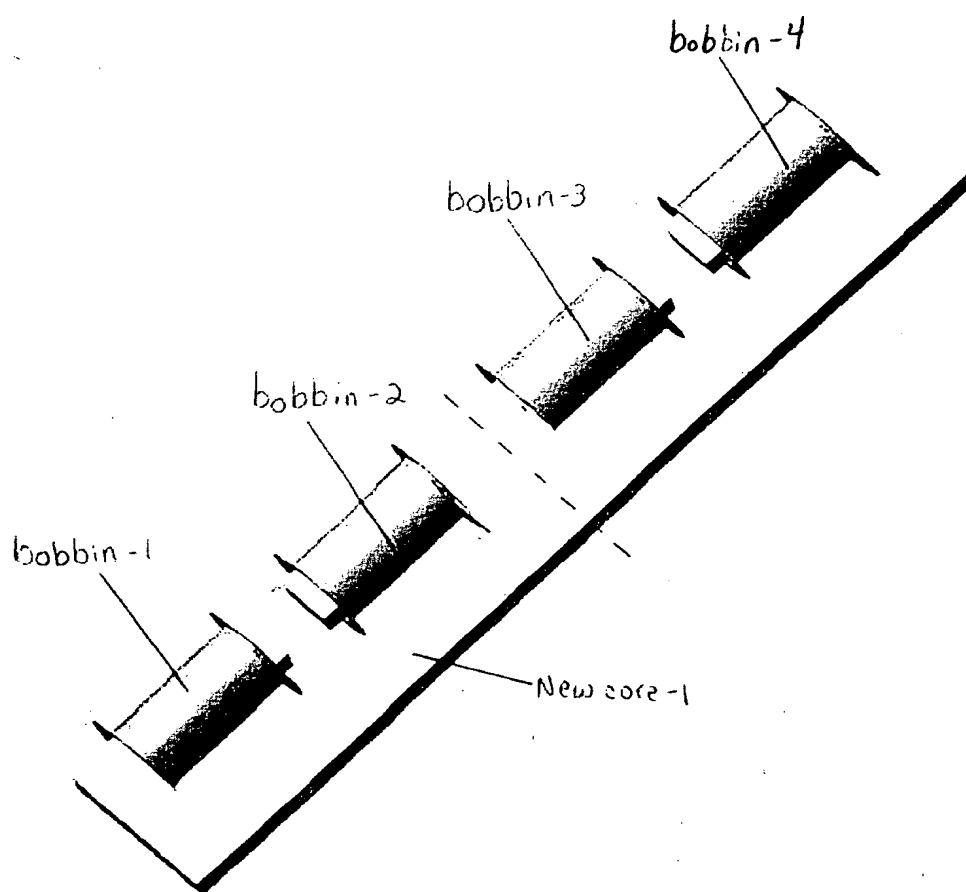


Figure 6

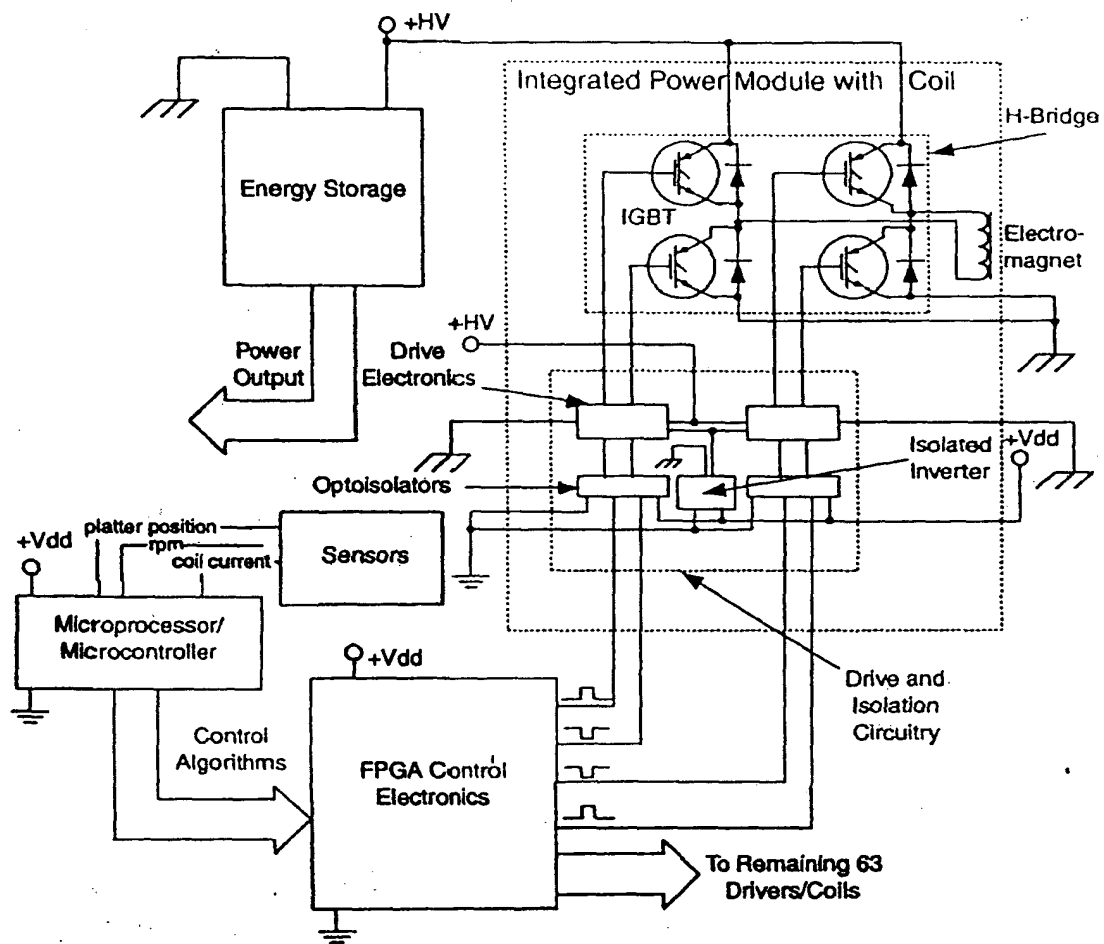


Figure 1

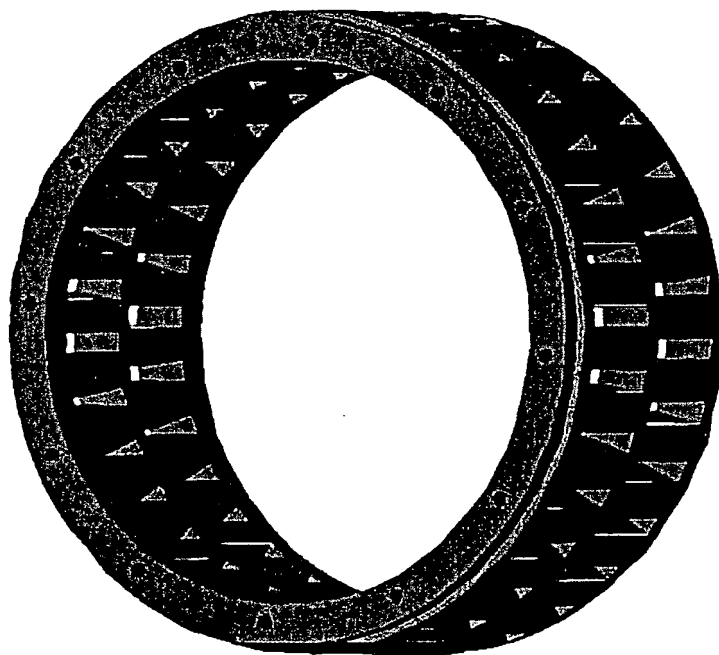


Figure 8

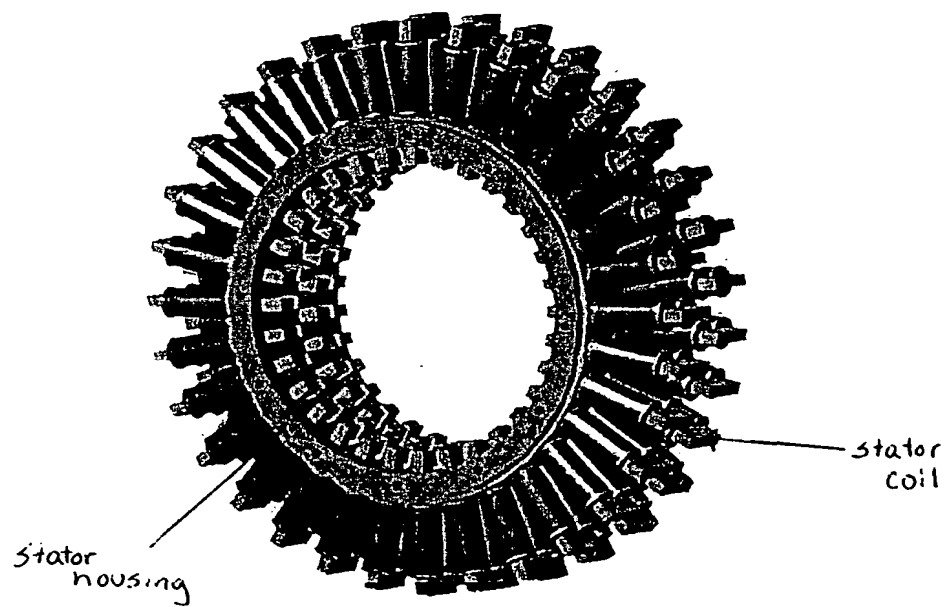


Figure 4

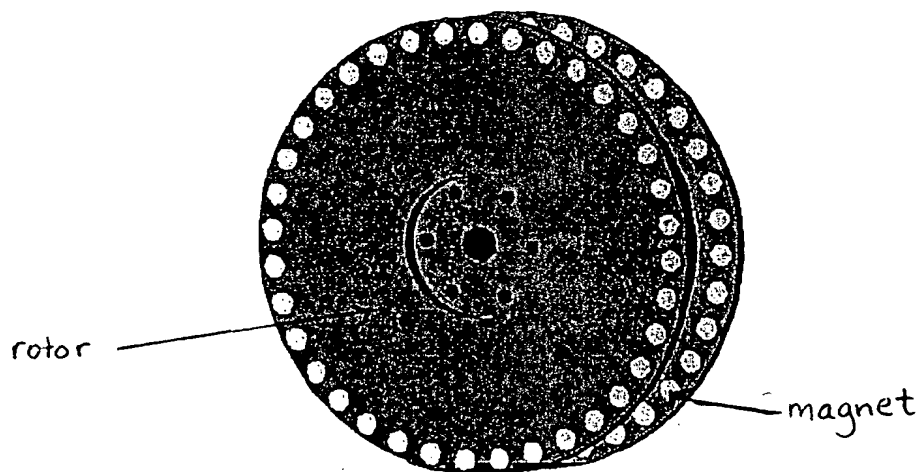


Figure 10

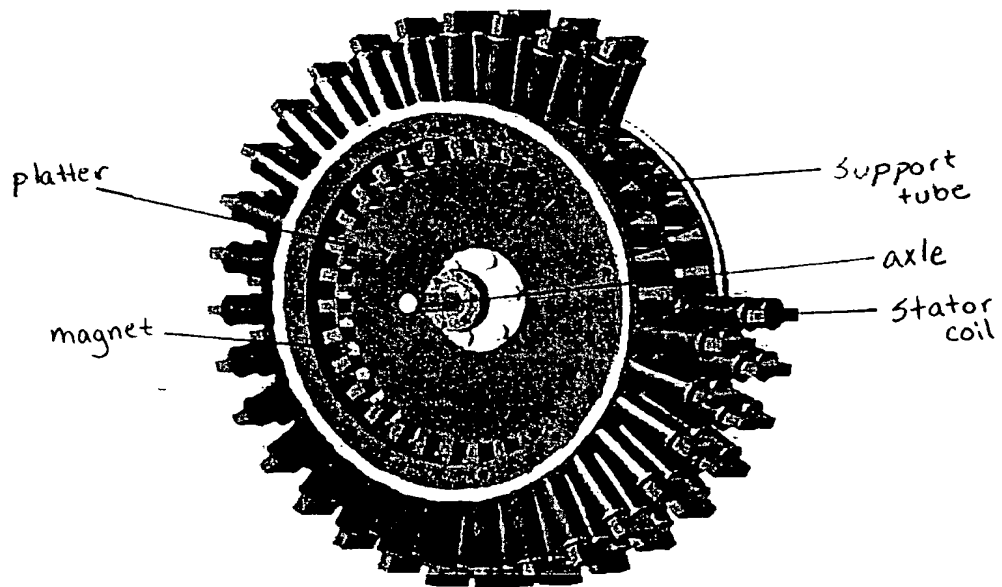


Figure 11

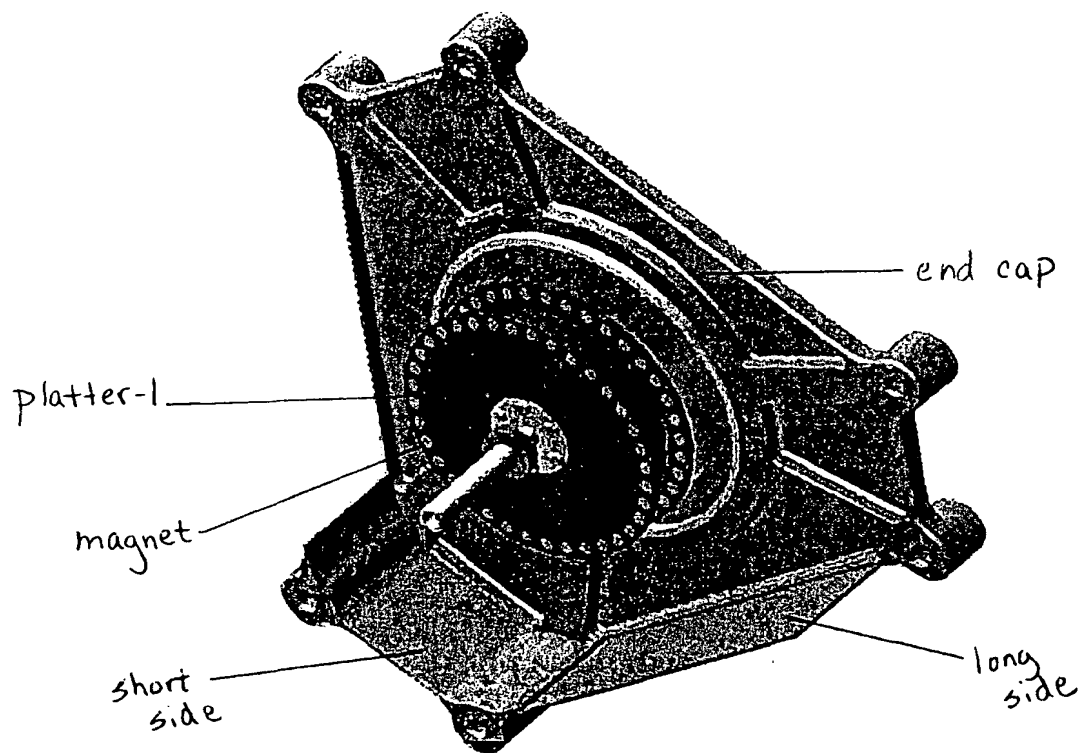


Figure 12

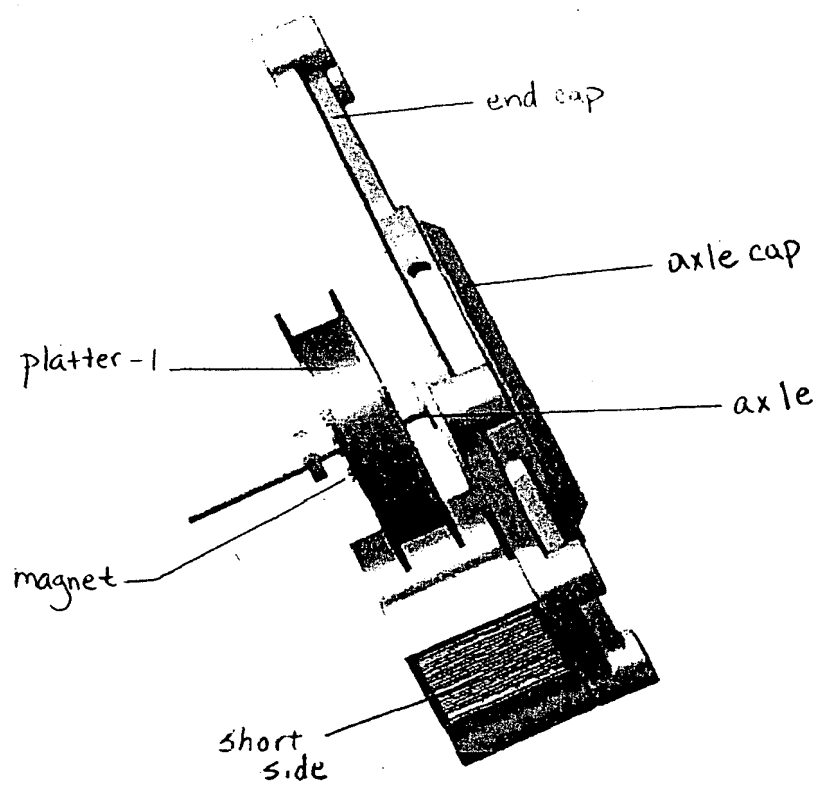


Figure 13

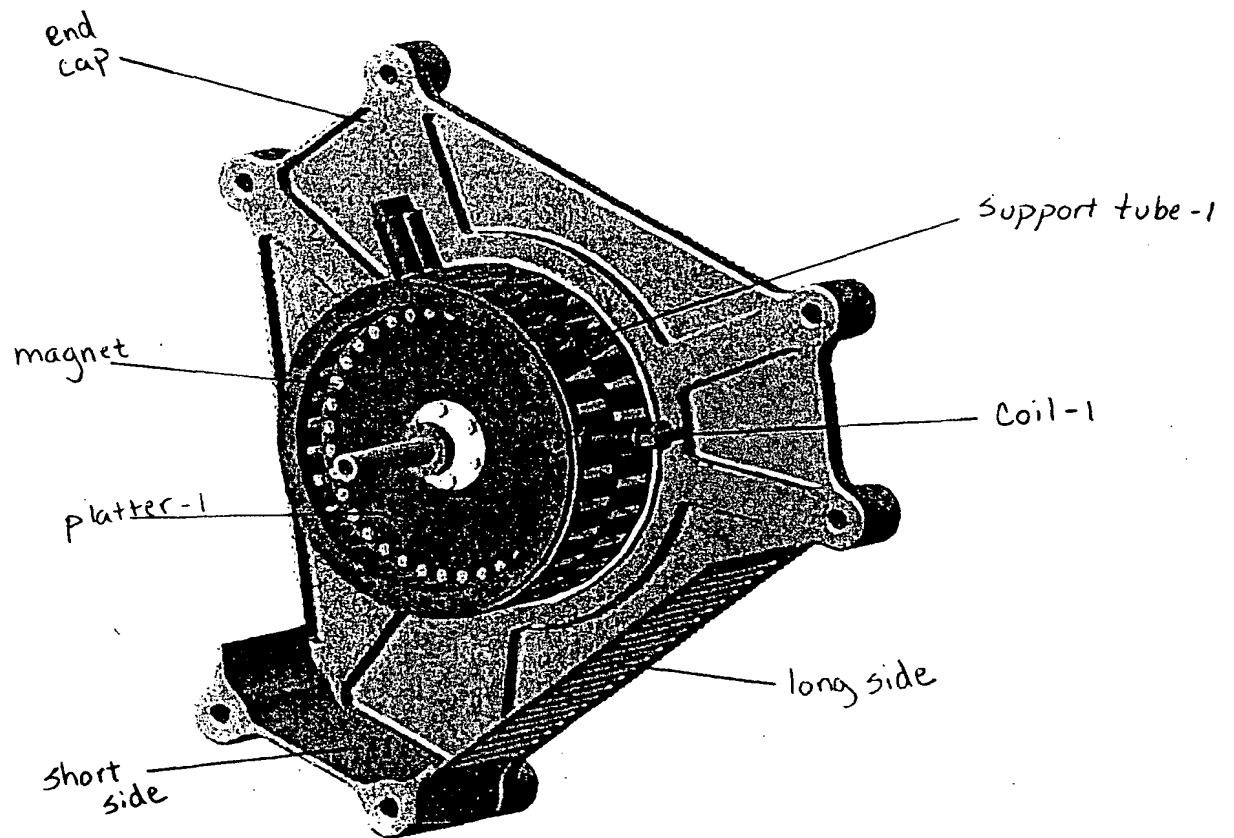


Figure 14

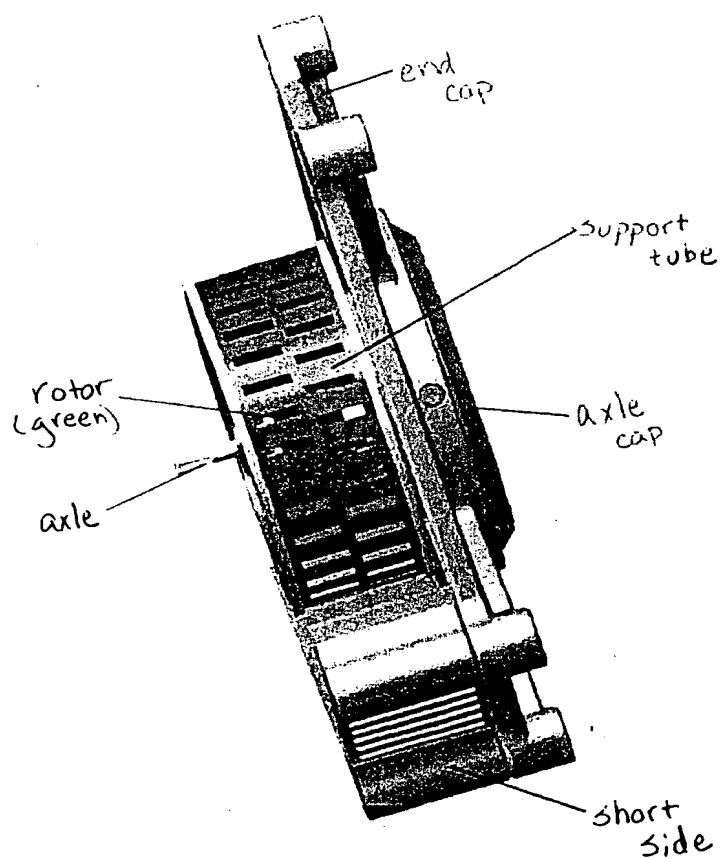


Figure 15

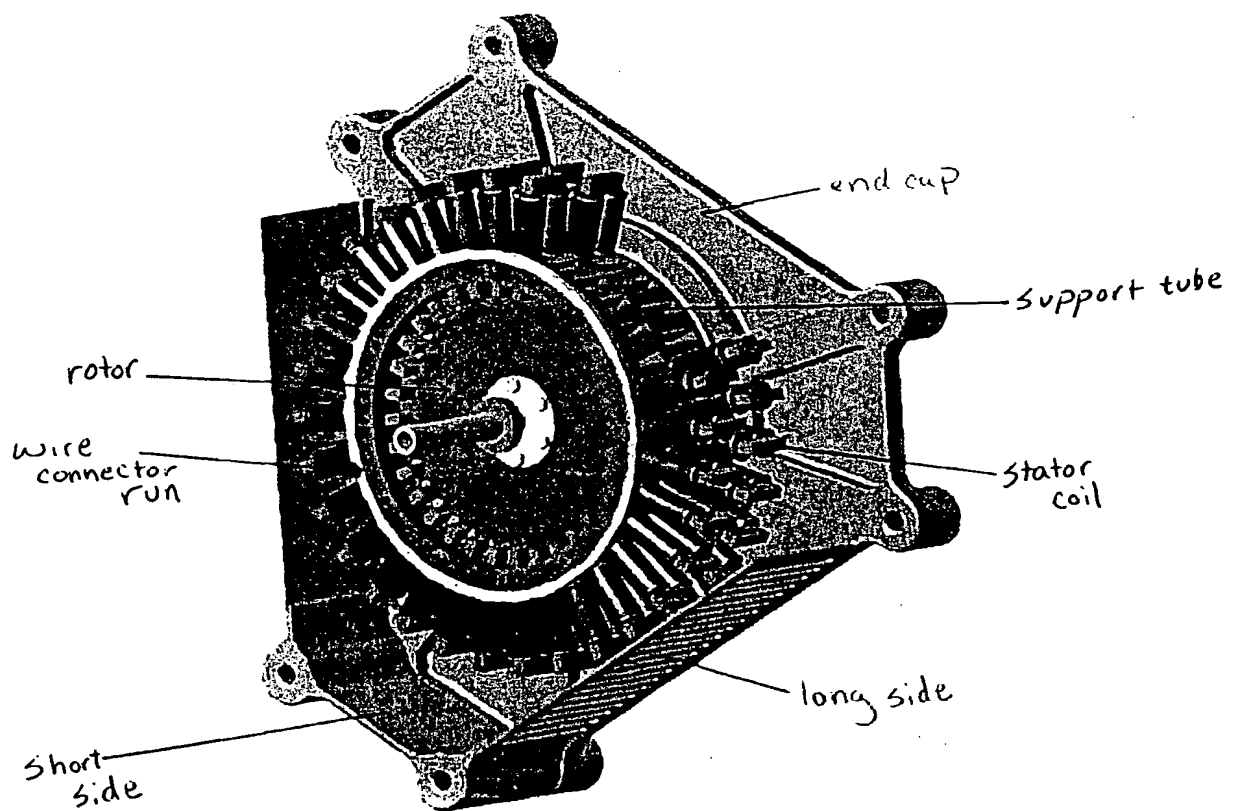


Figure 16

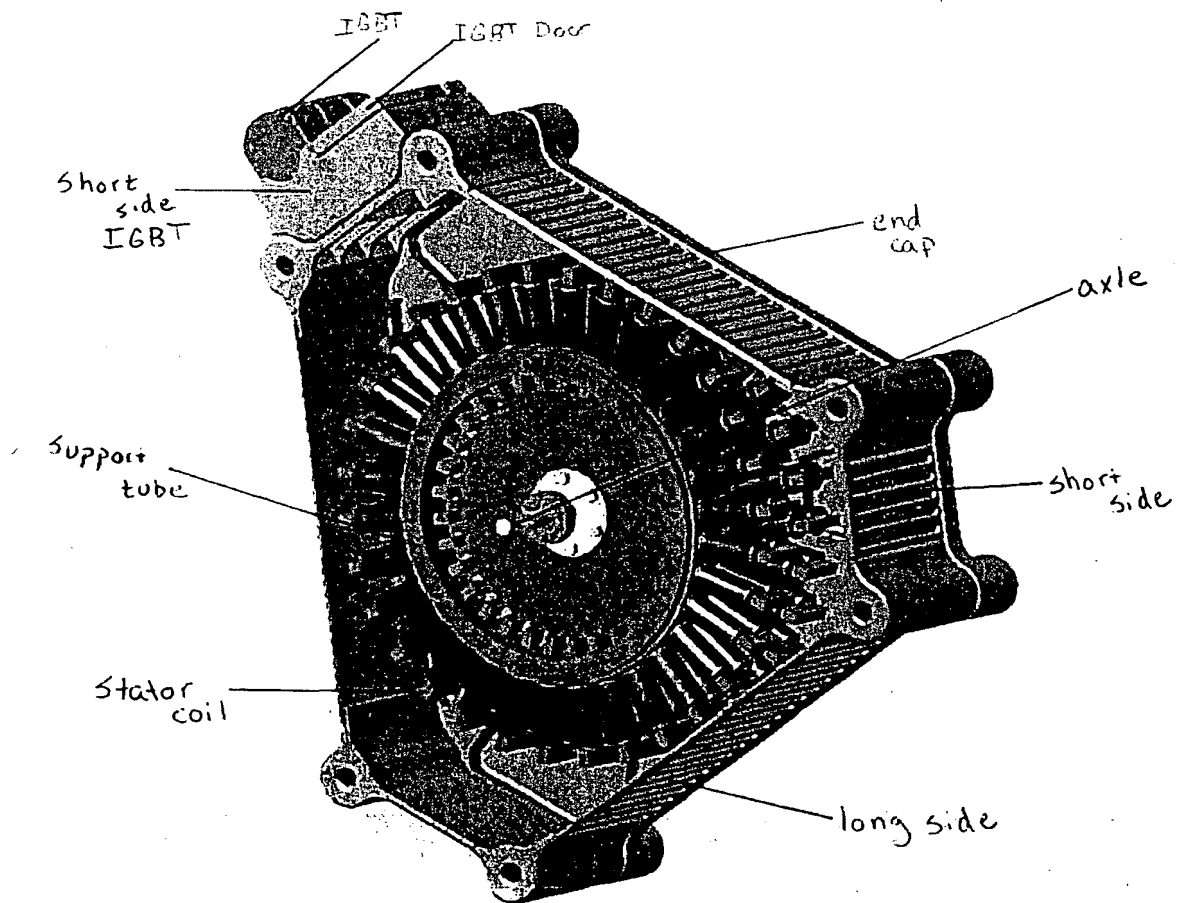


Figure 11

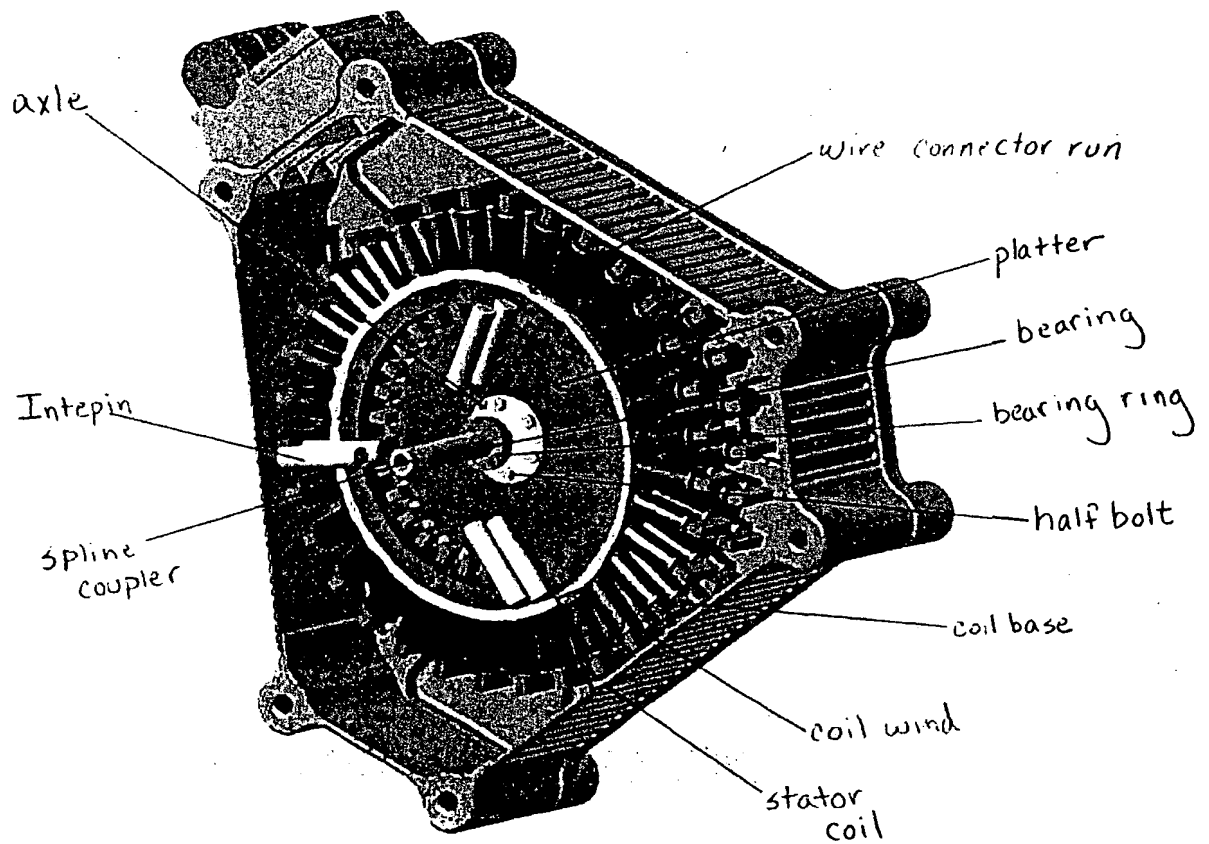
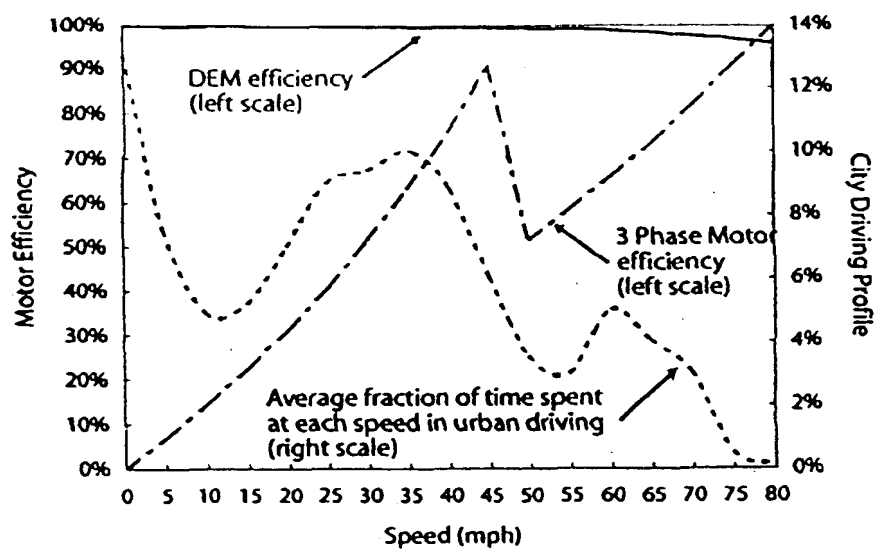
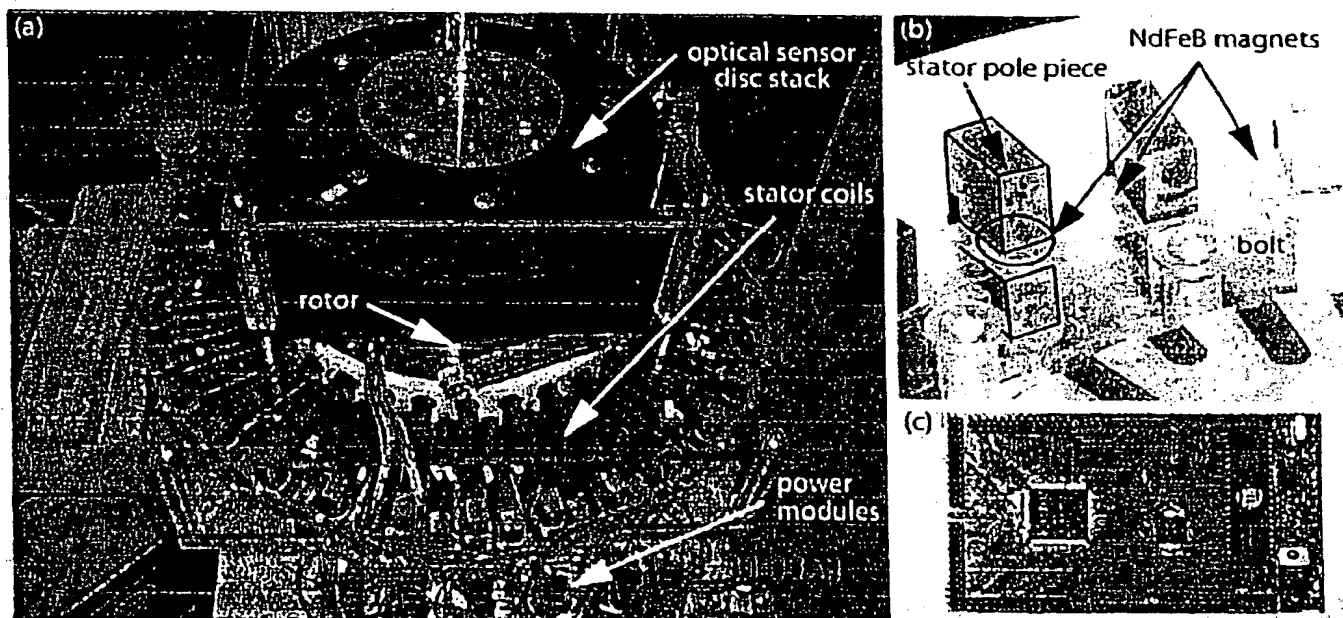


Figure 18



Comparison of the efficiency of the DEM vs. a conventional 3-phase motor with a transmission.



(a) Overview (b) Close up of rotor edge. (c) Controller board.

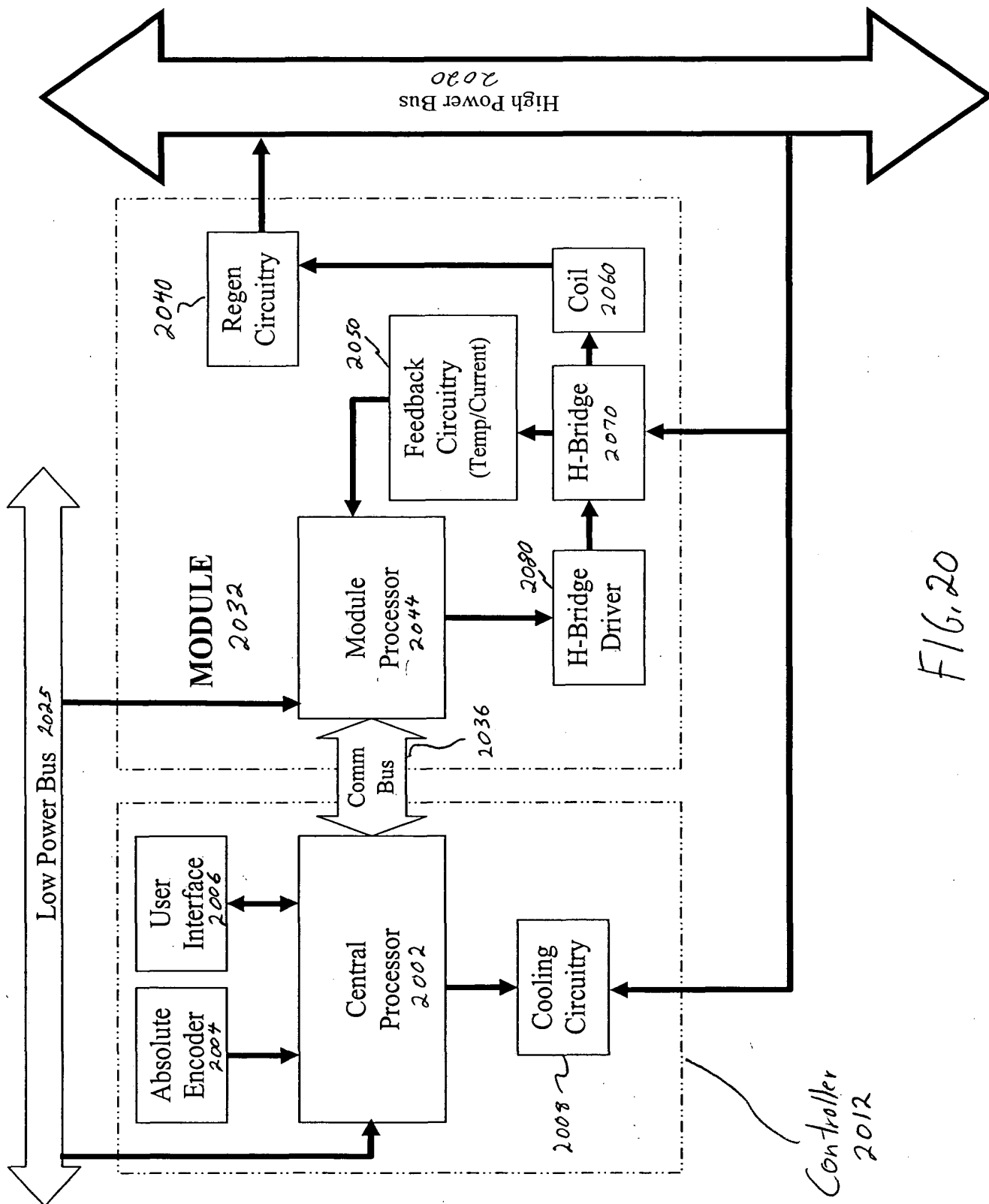


FIG. 20

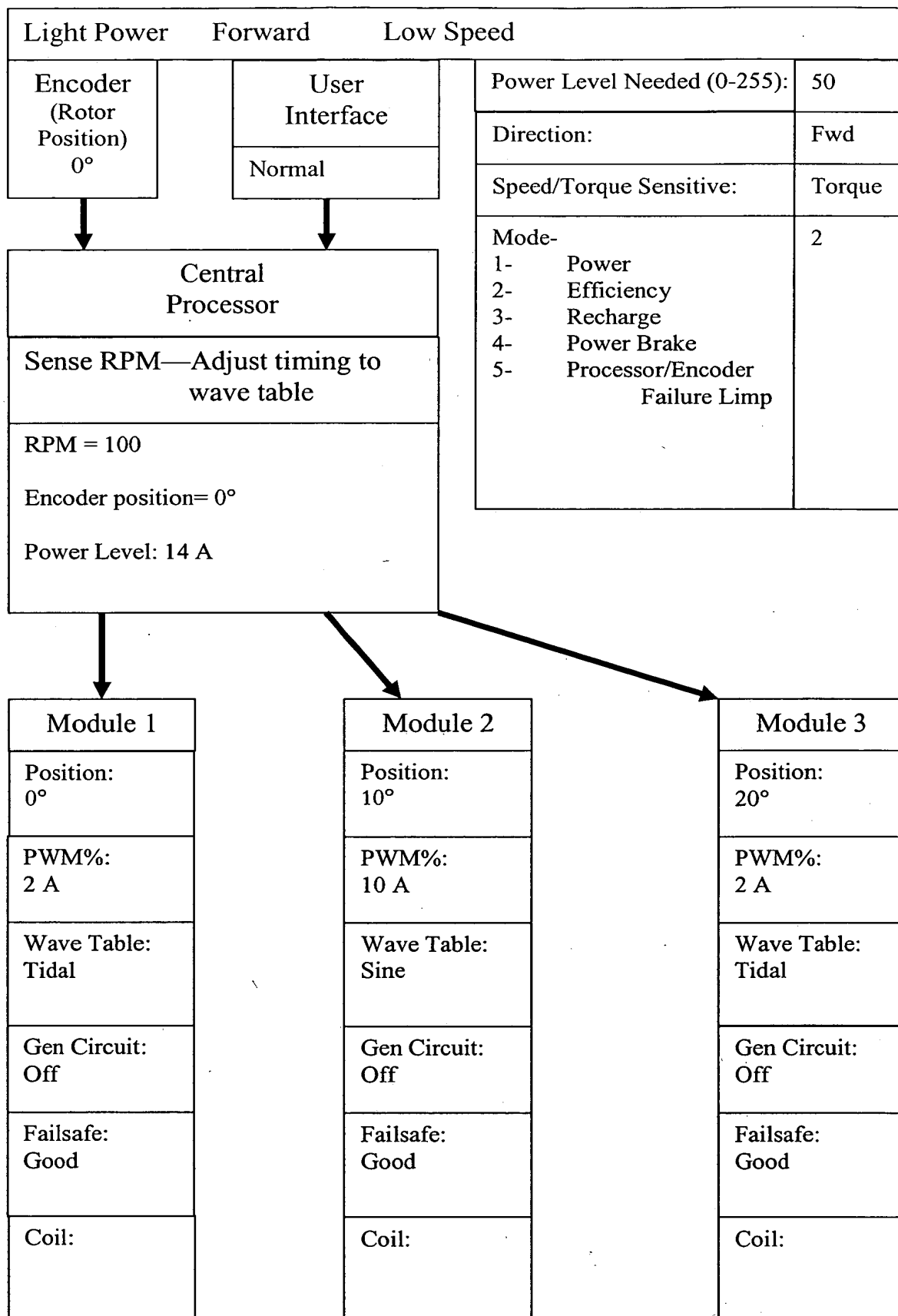


FIG. 21

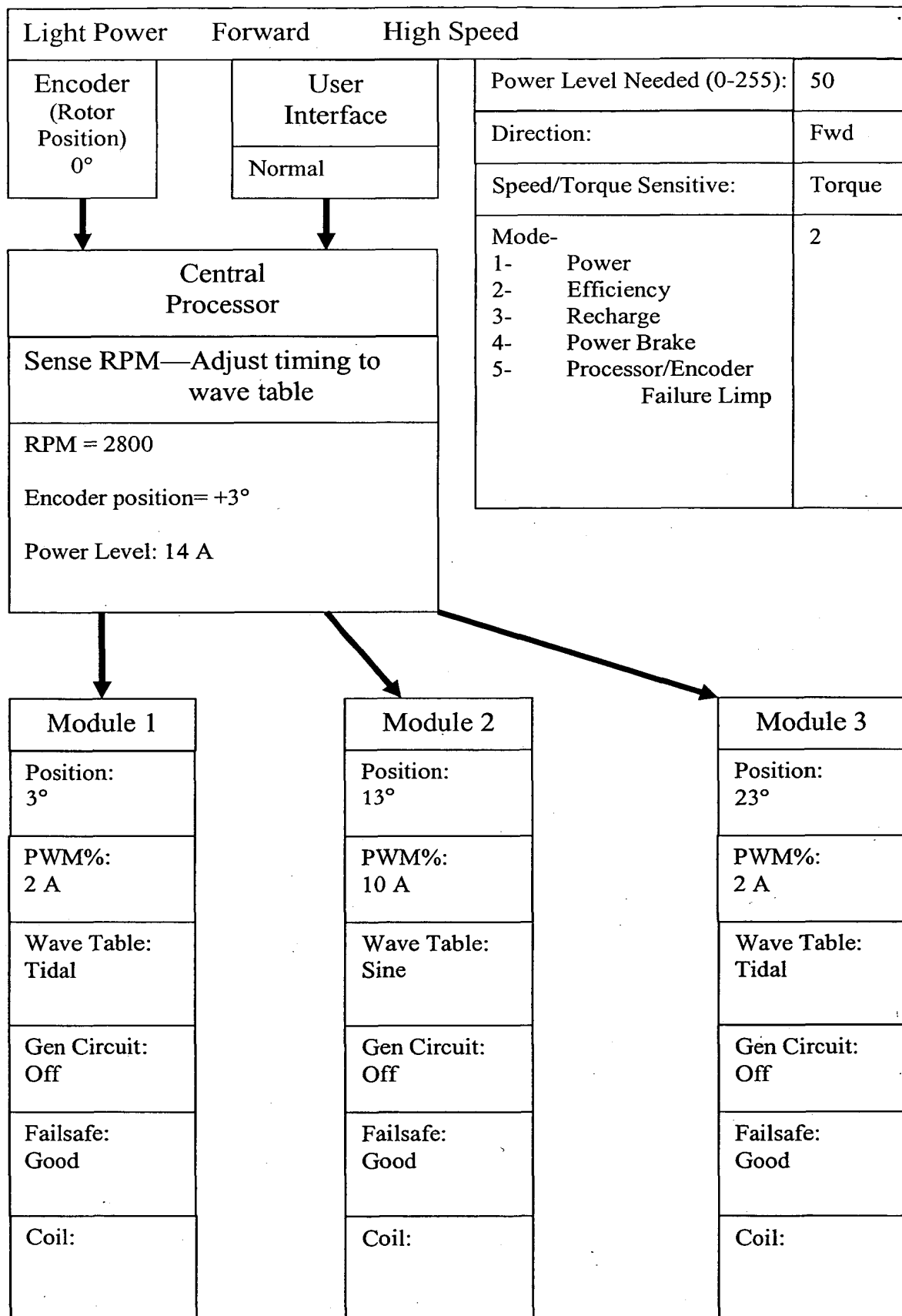


FIG. 22

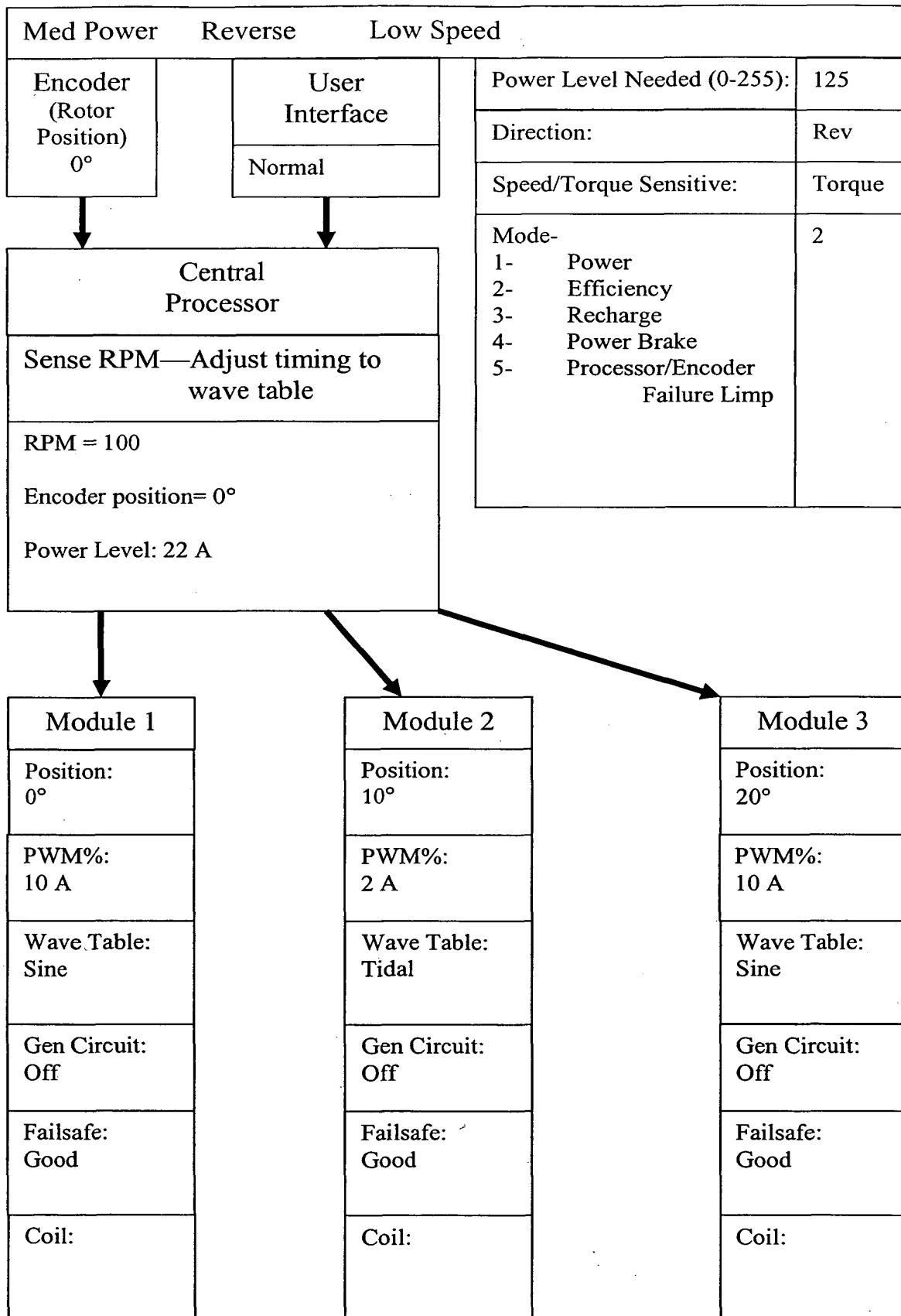


FIG. 23

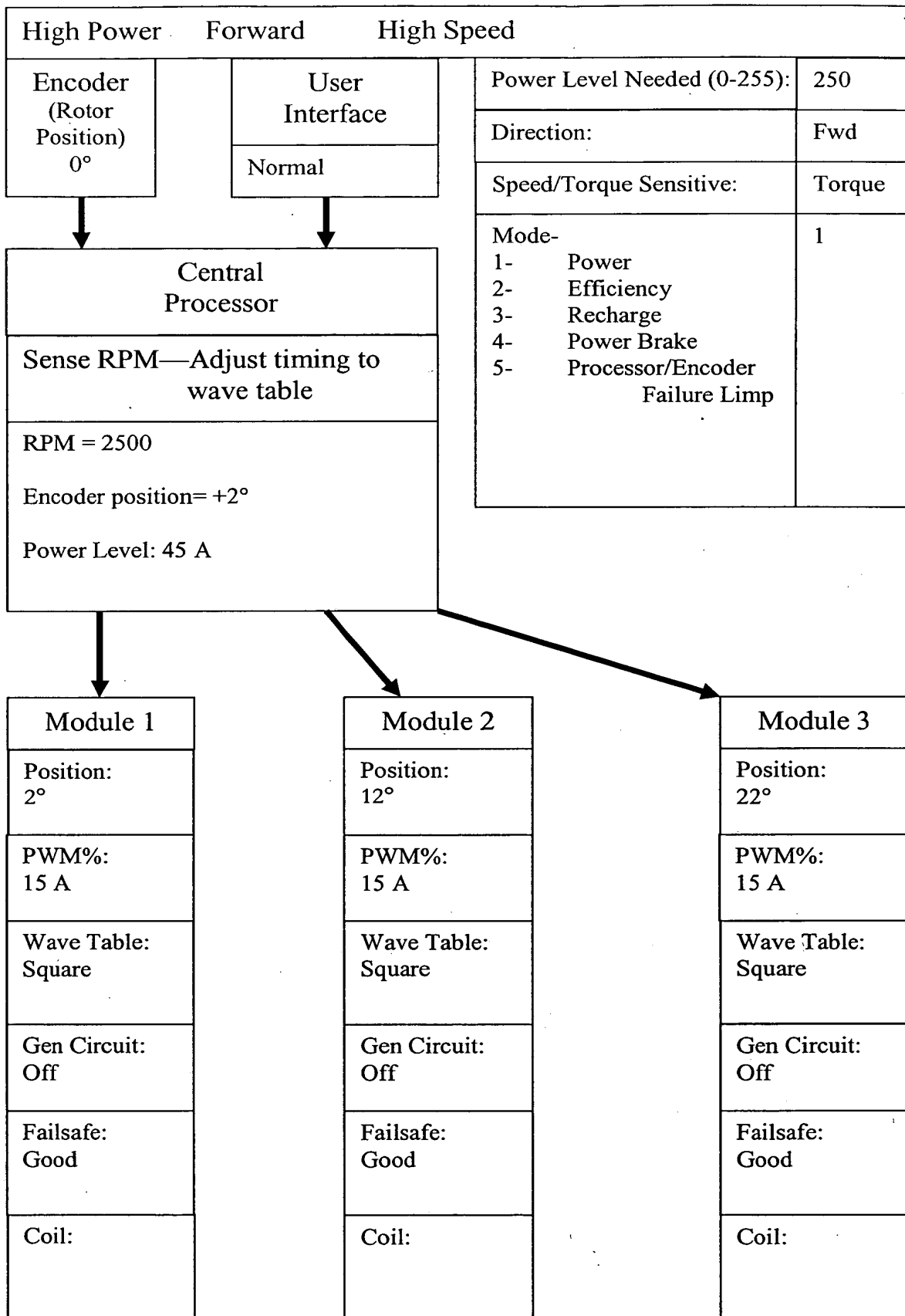


FIG. 24

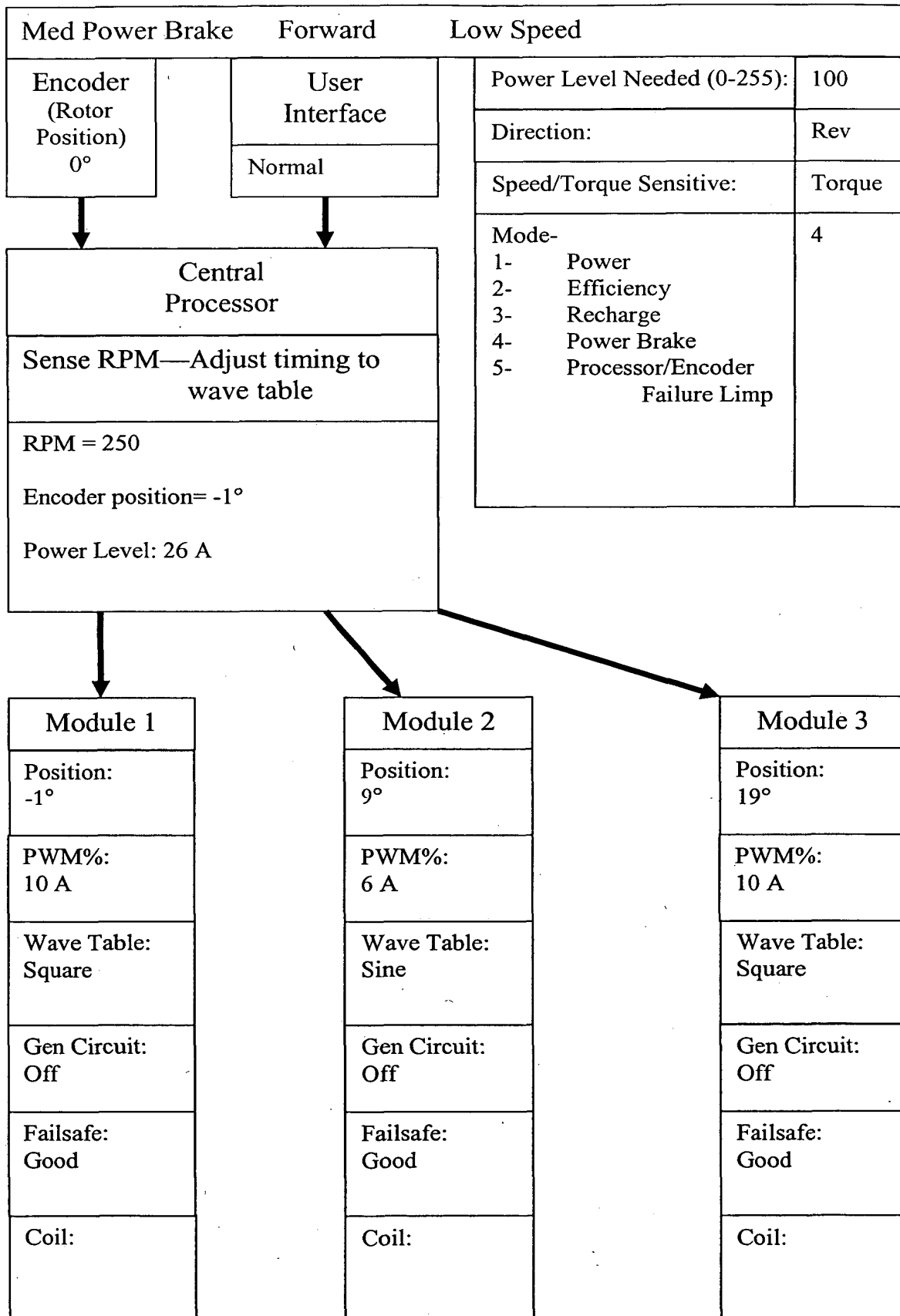


FIG. 25

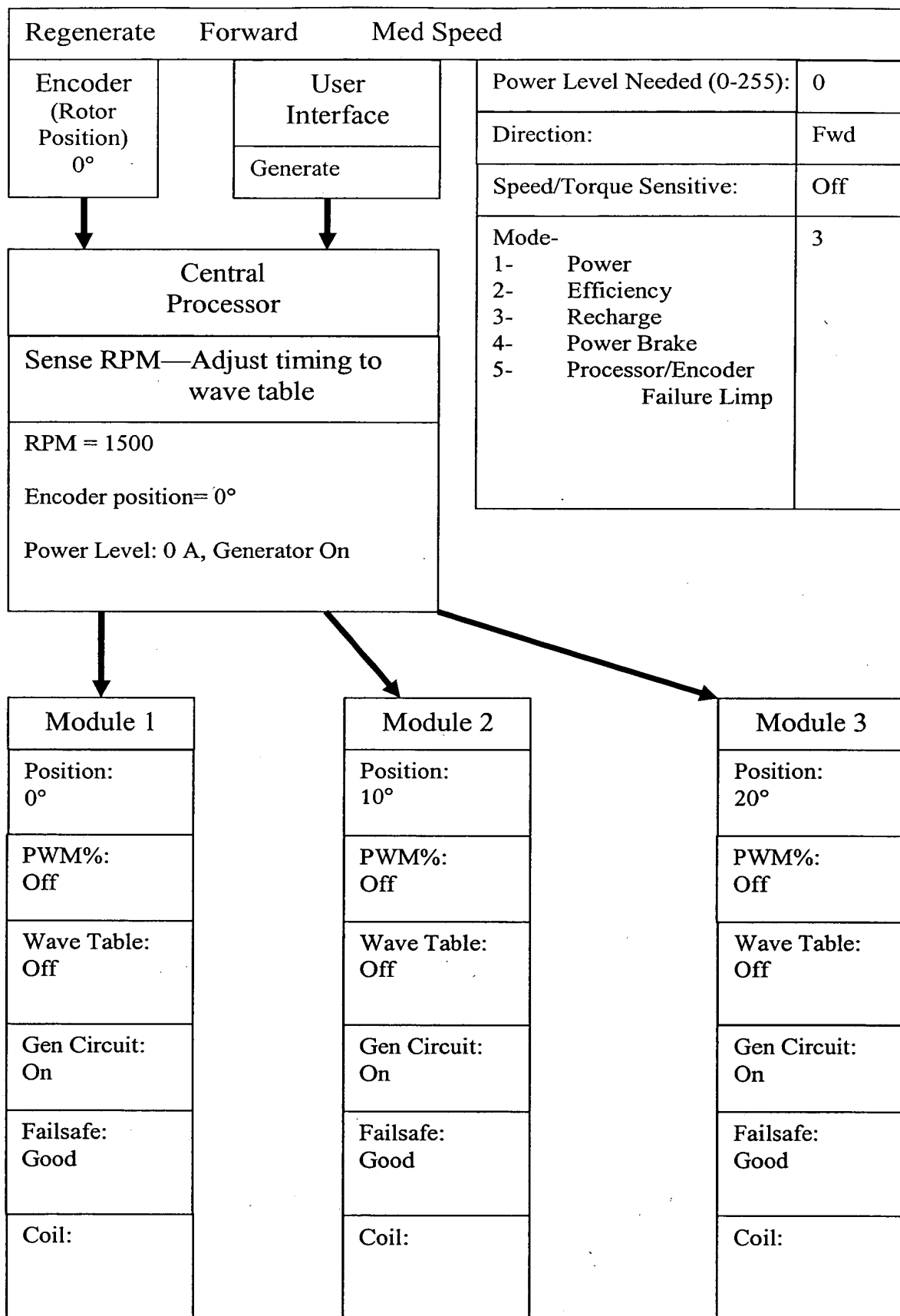


FIG. 26

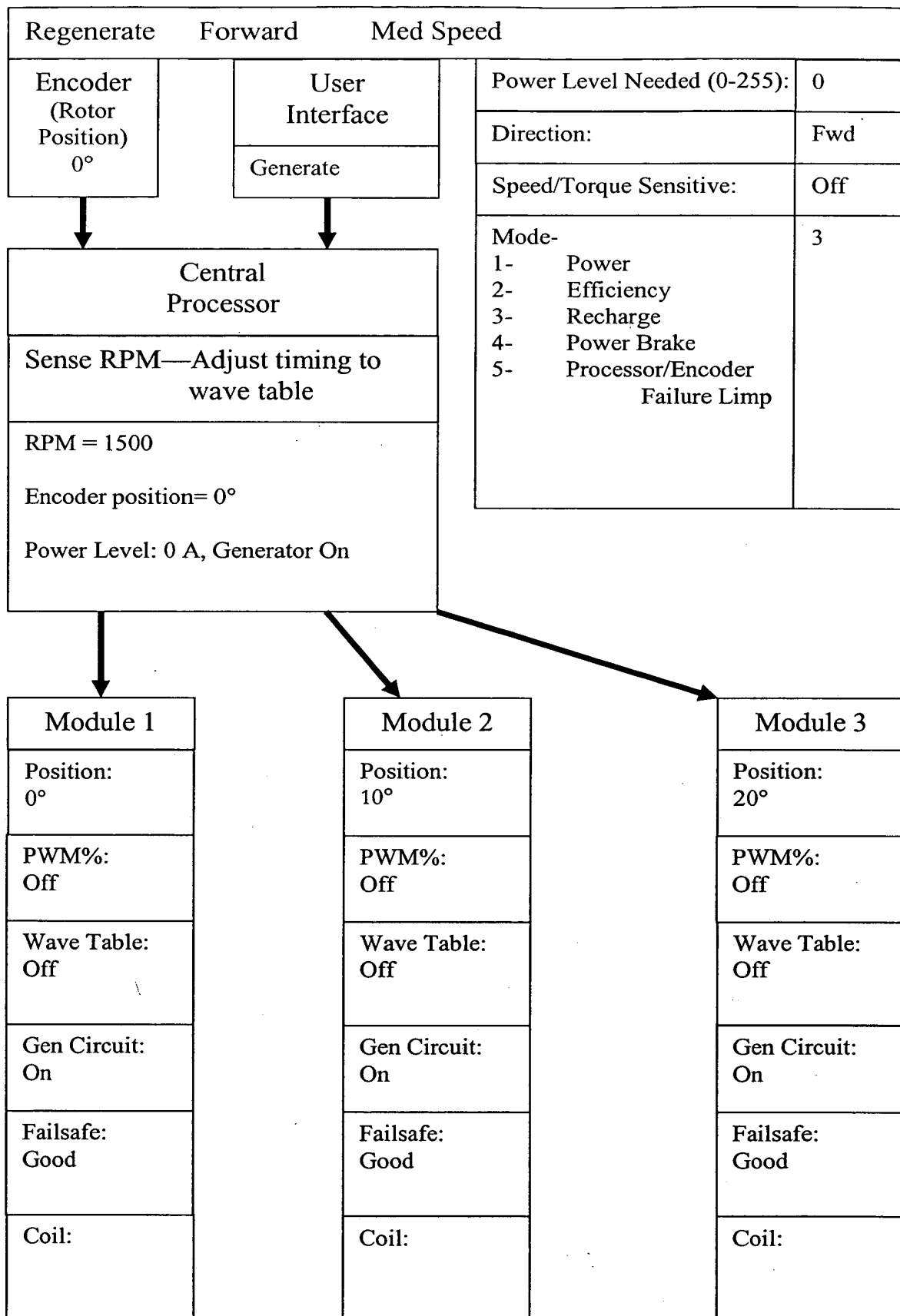


FIG. 27

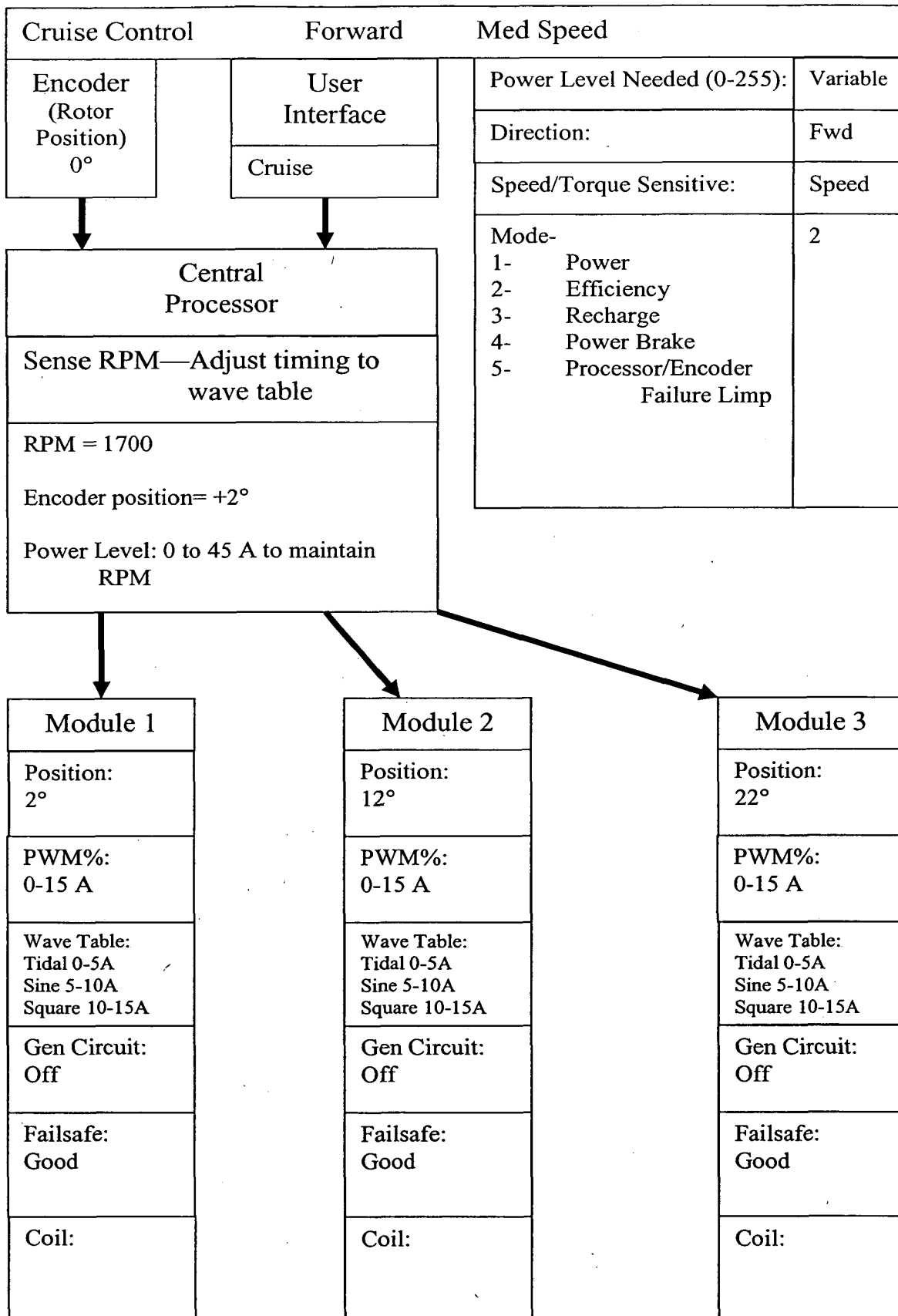


FIG. 28

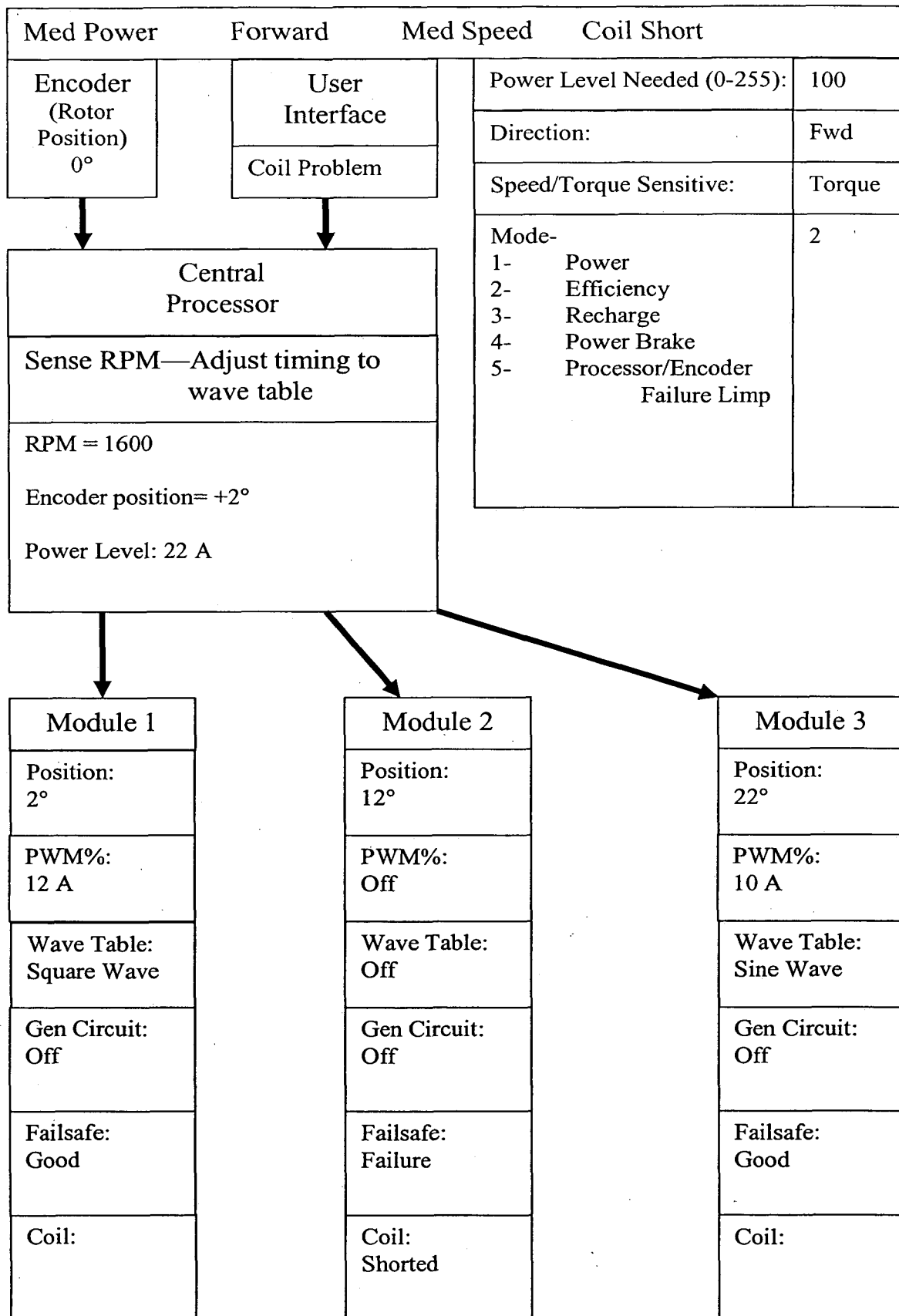


FIG. 29

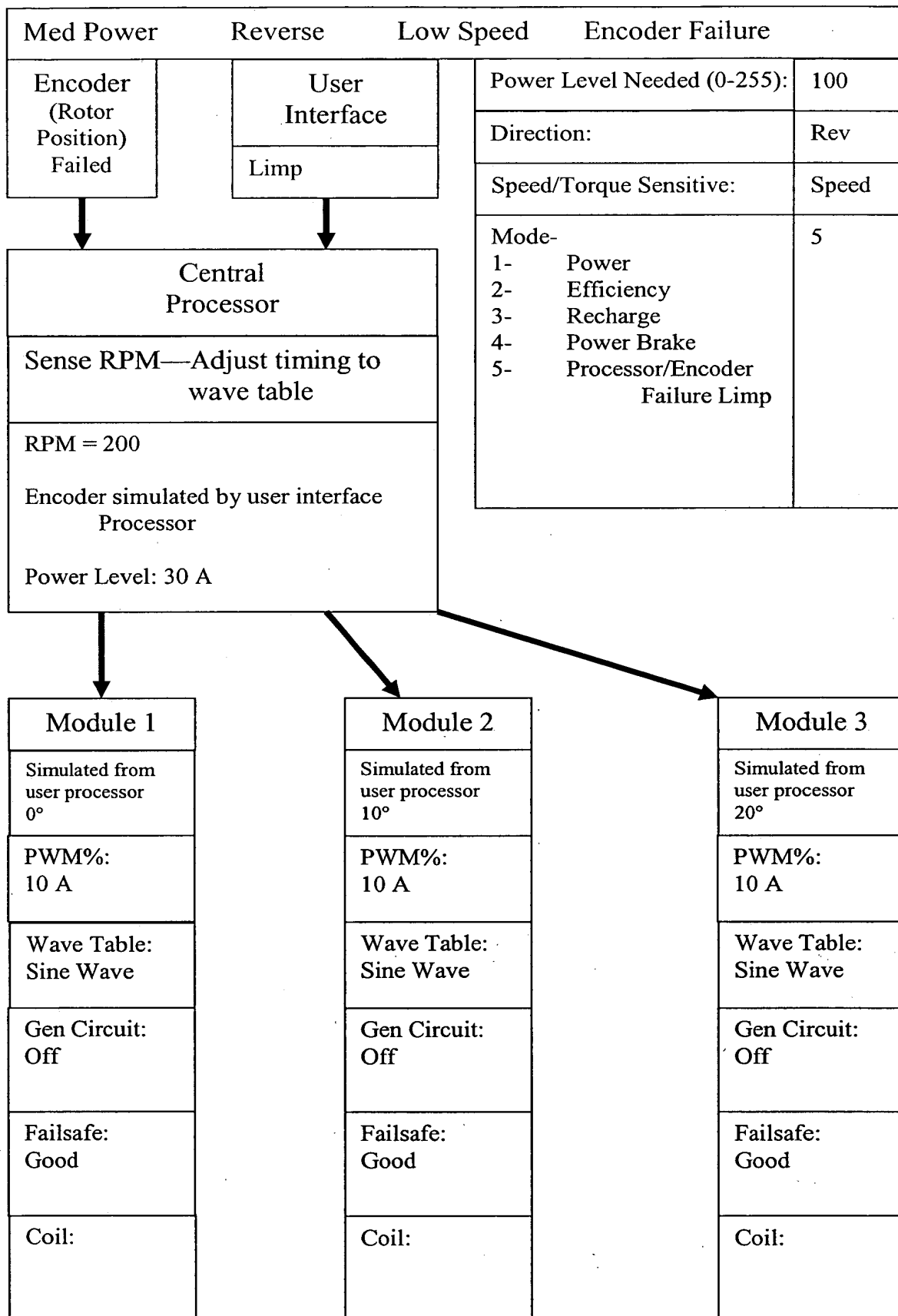


FIG. 30

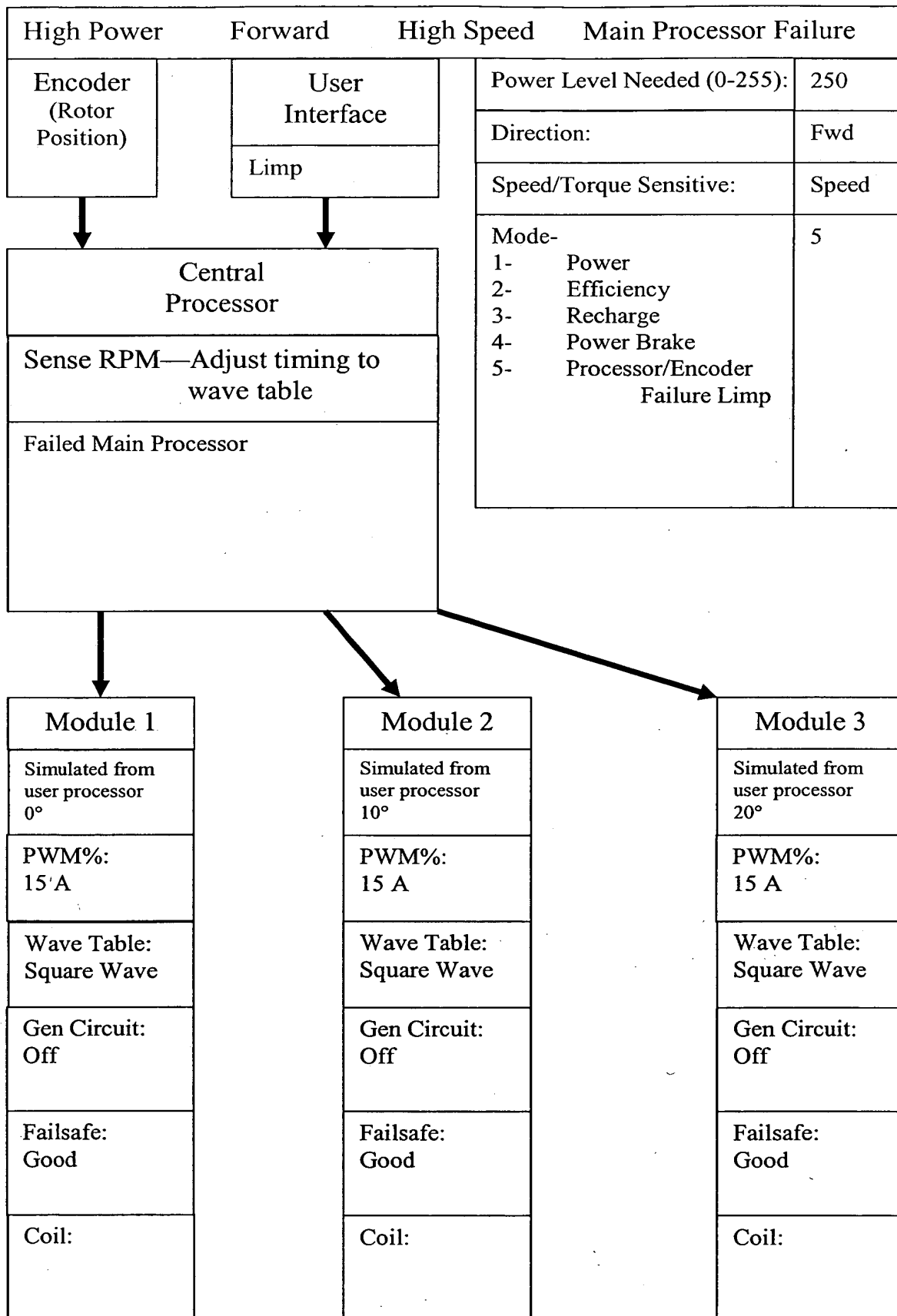


FIG. 31

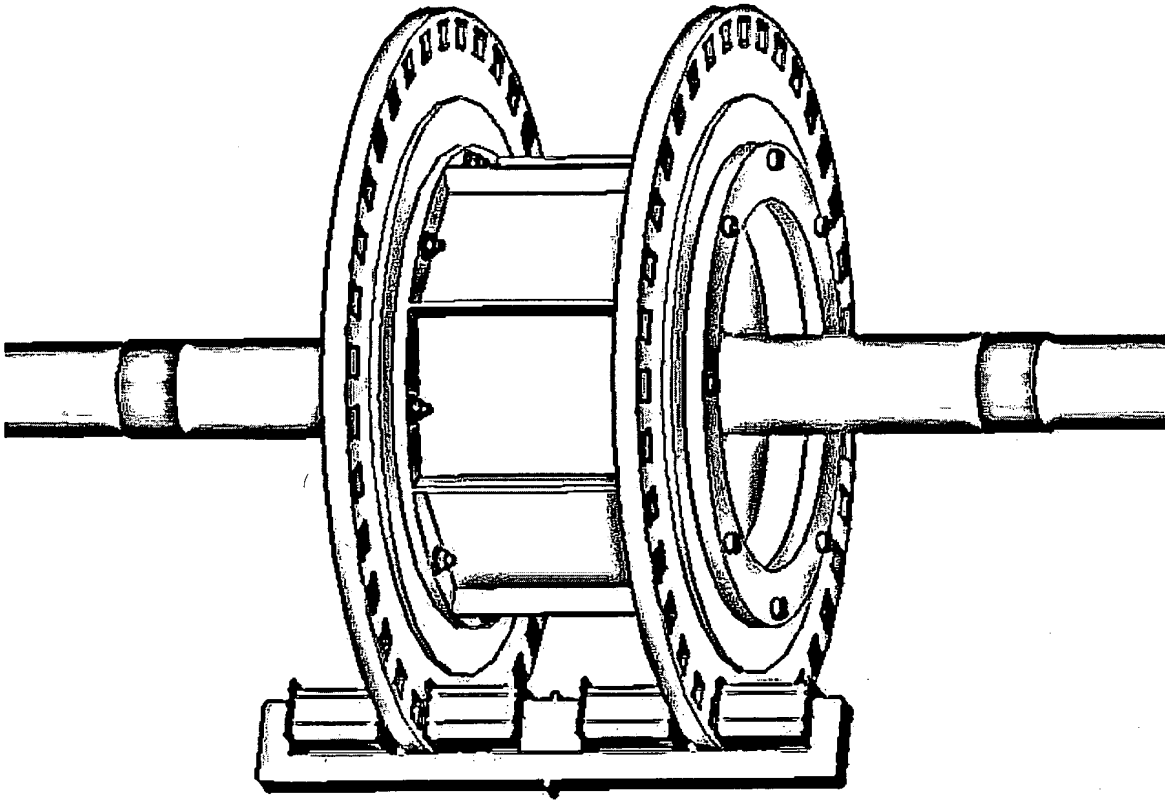
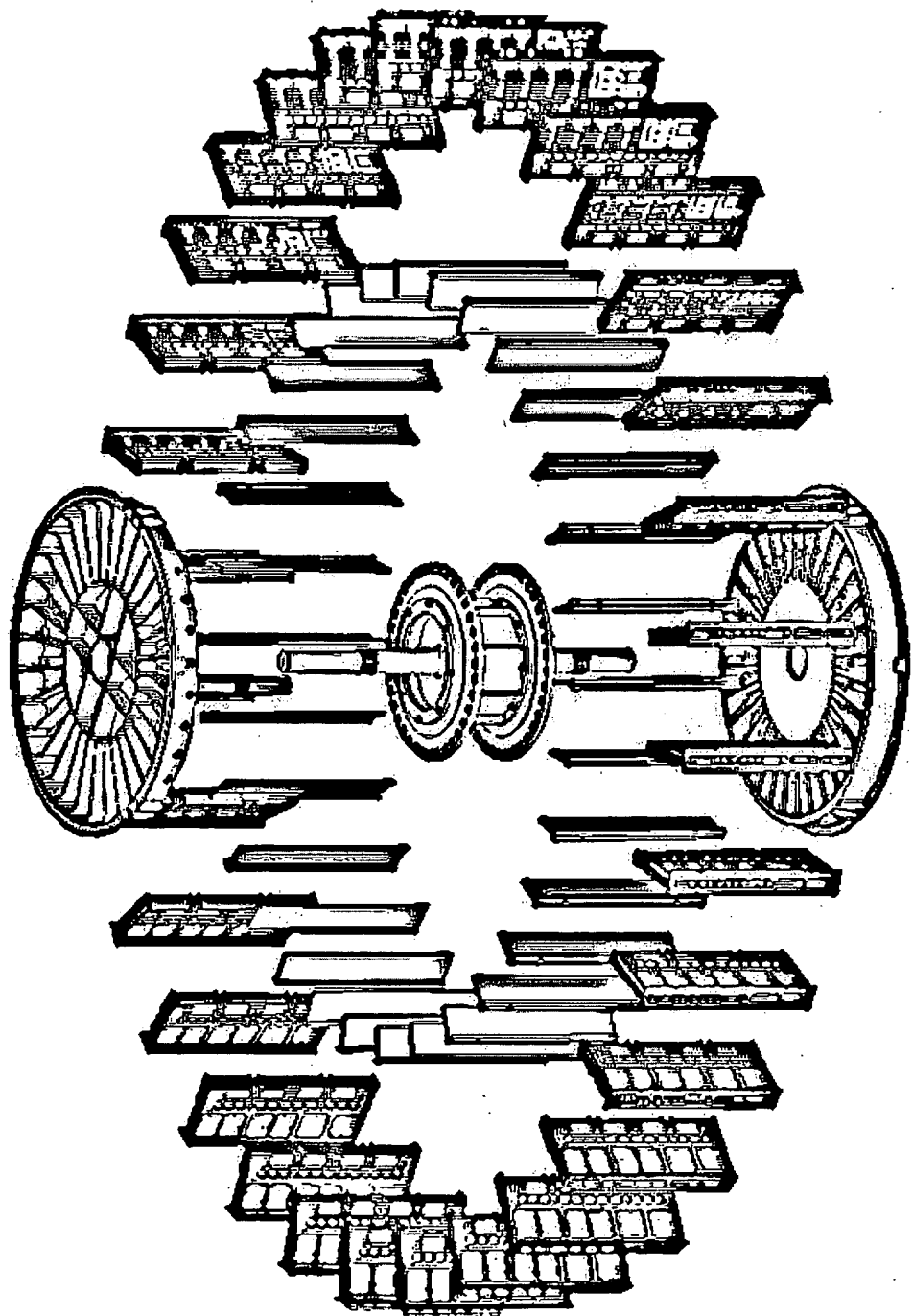


FIG. 32

FIG. 33



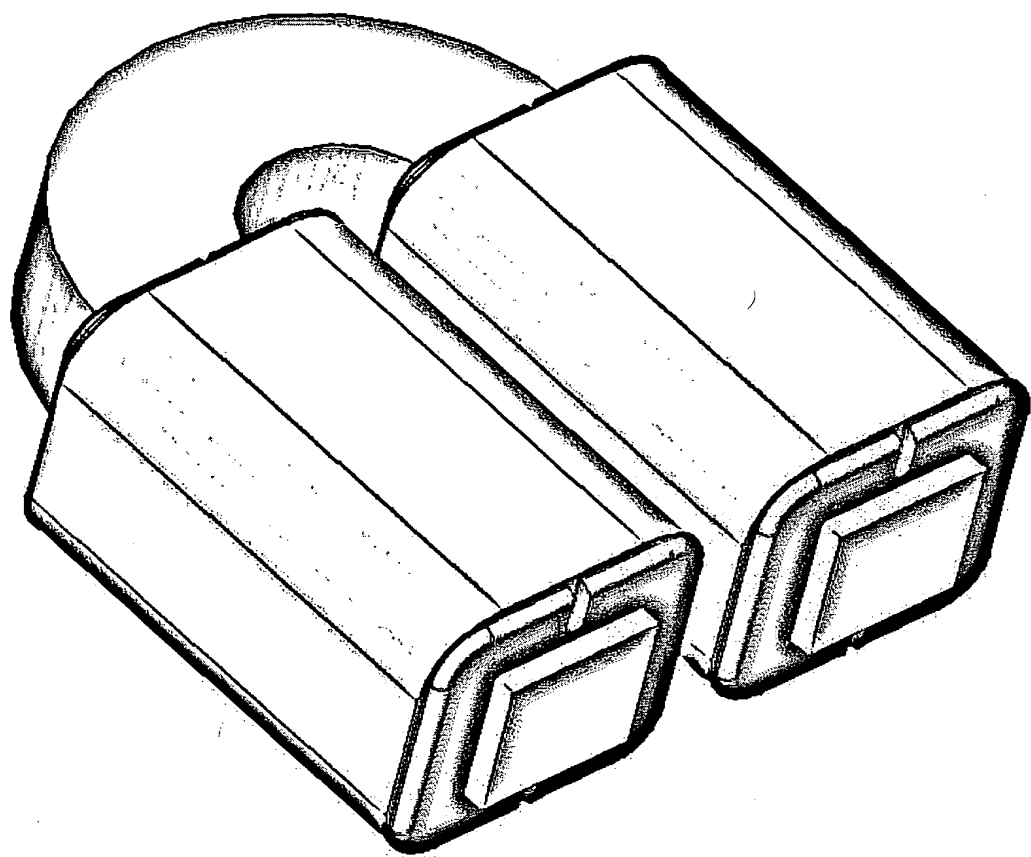


FIG. 34

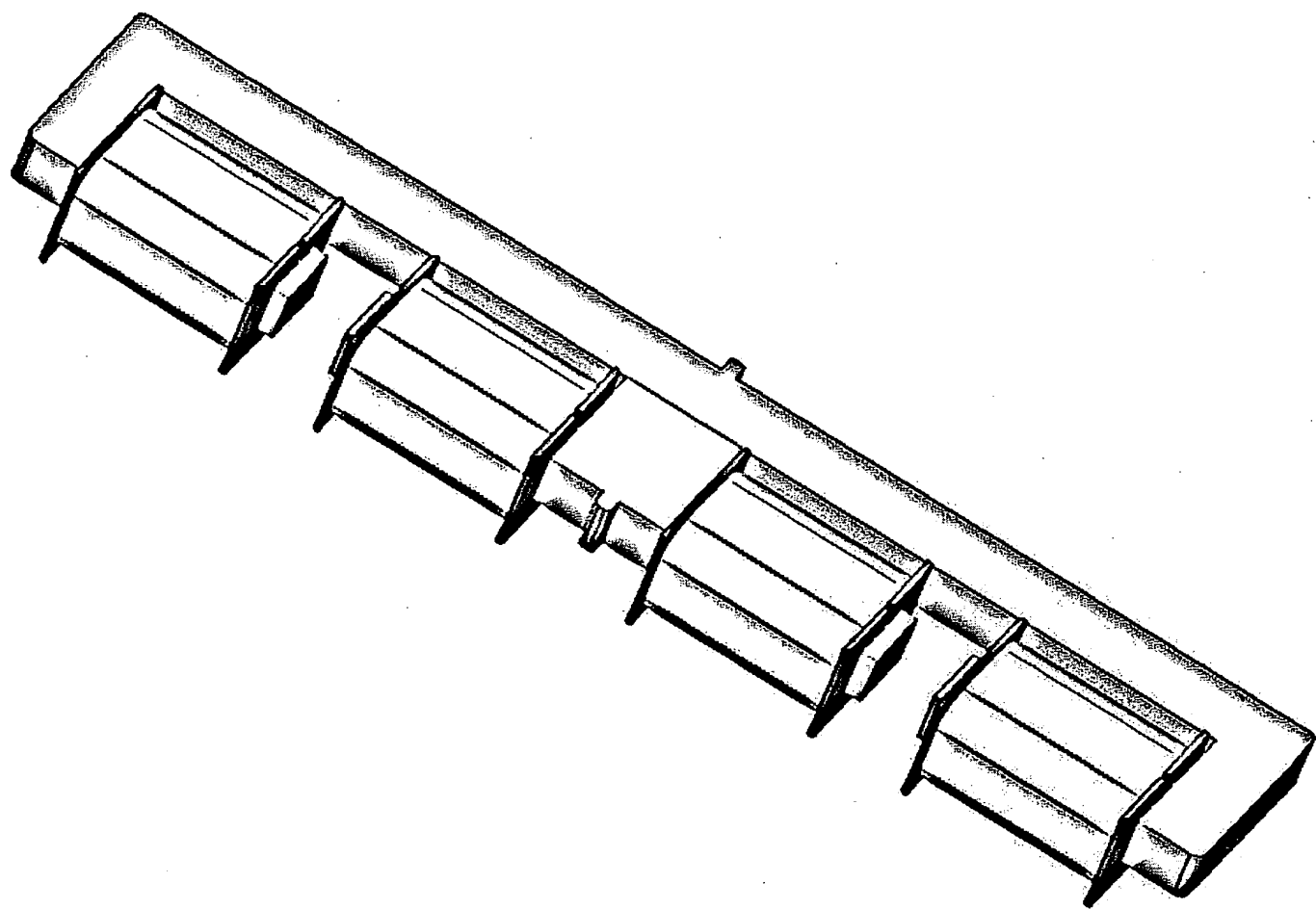


FIG. 35

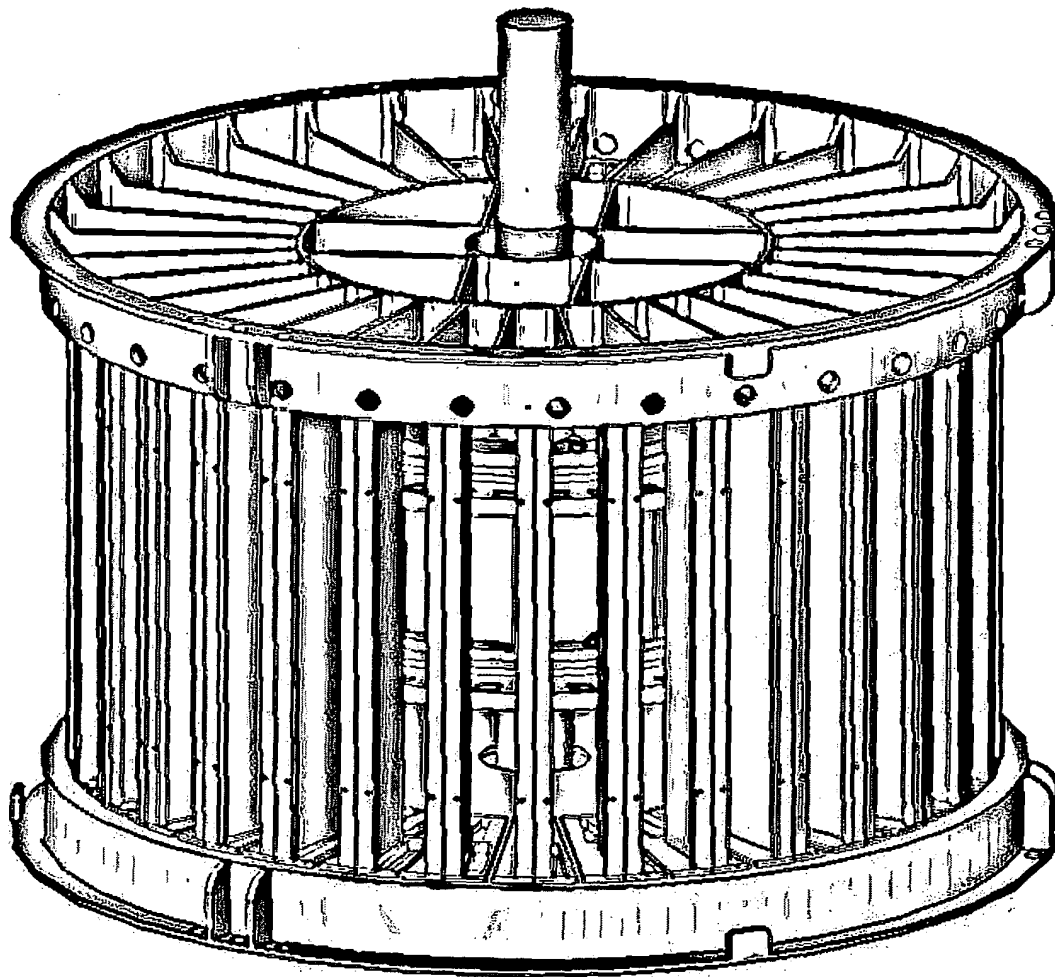


FIG. 36

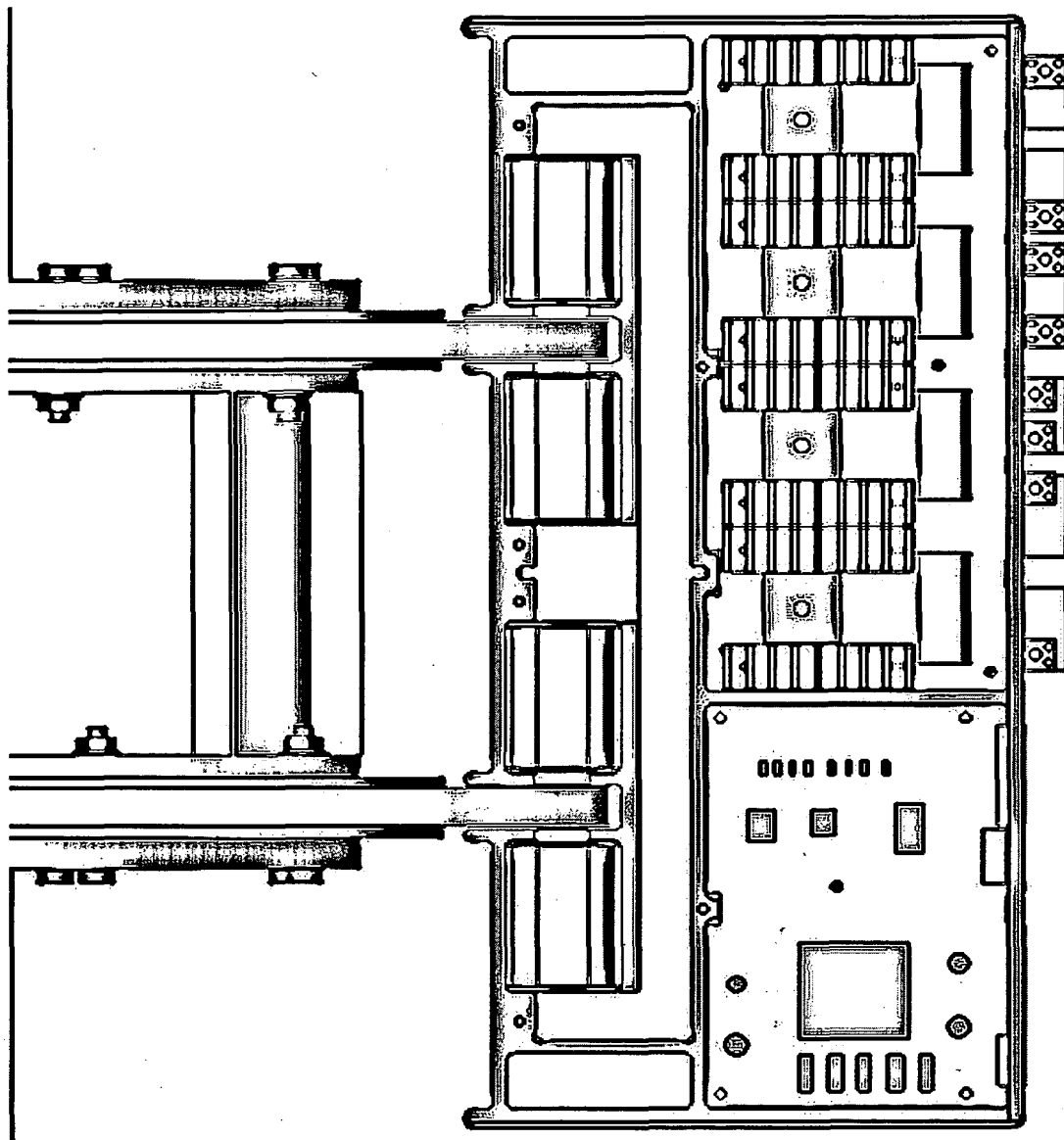


FIG. 37

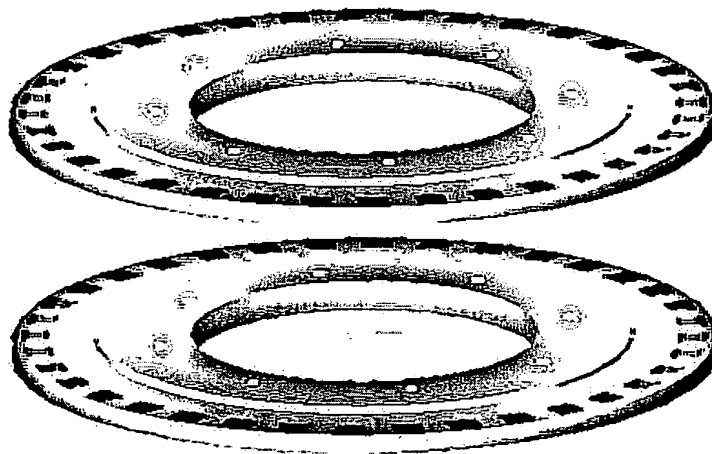
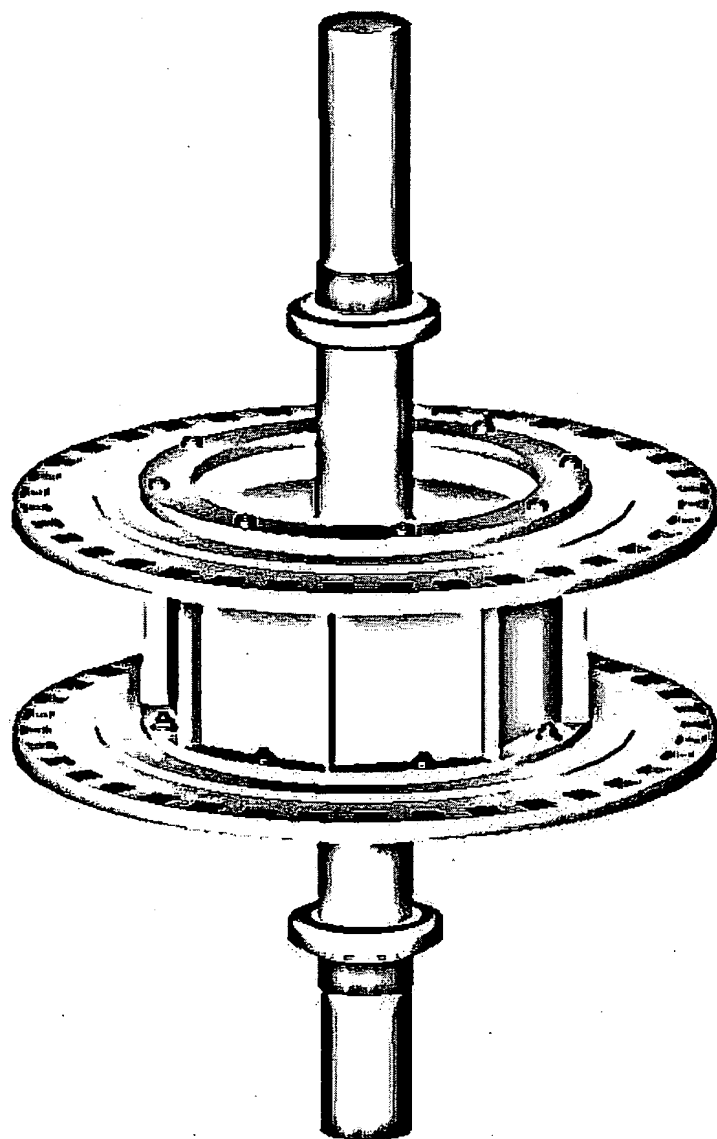


FIG. 38



F/G, 39

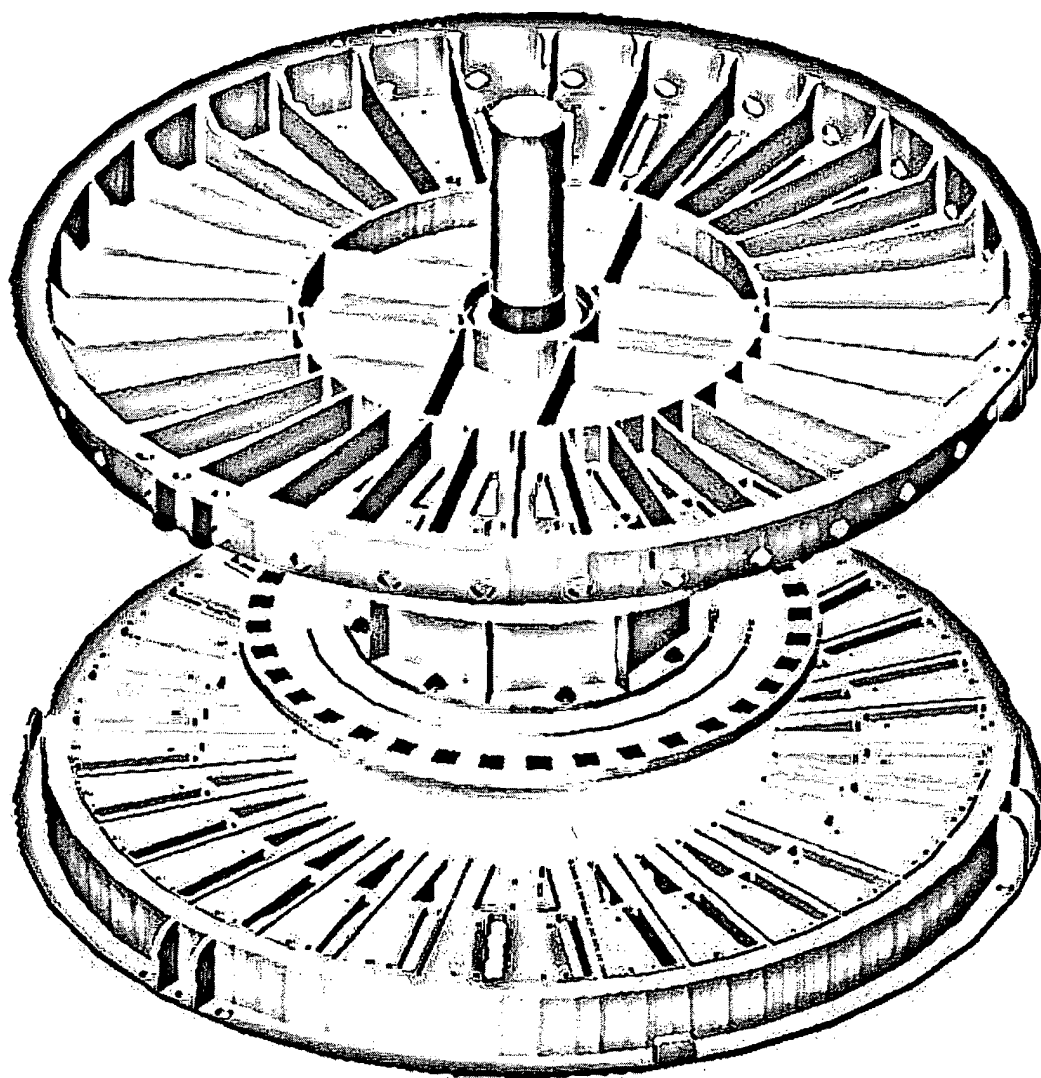


FIG. 40

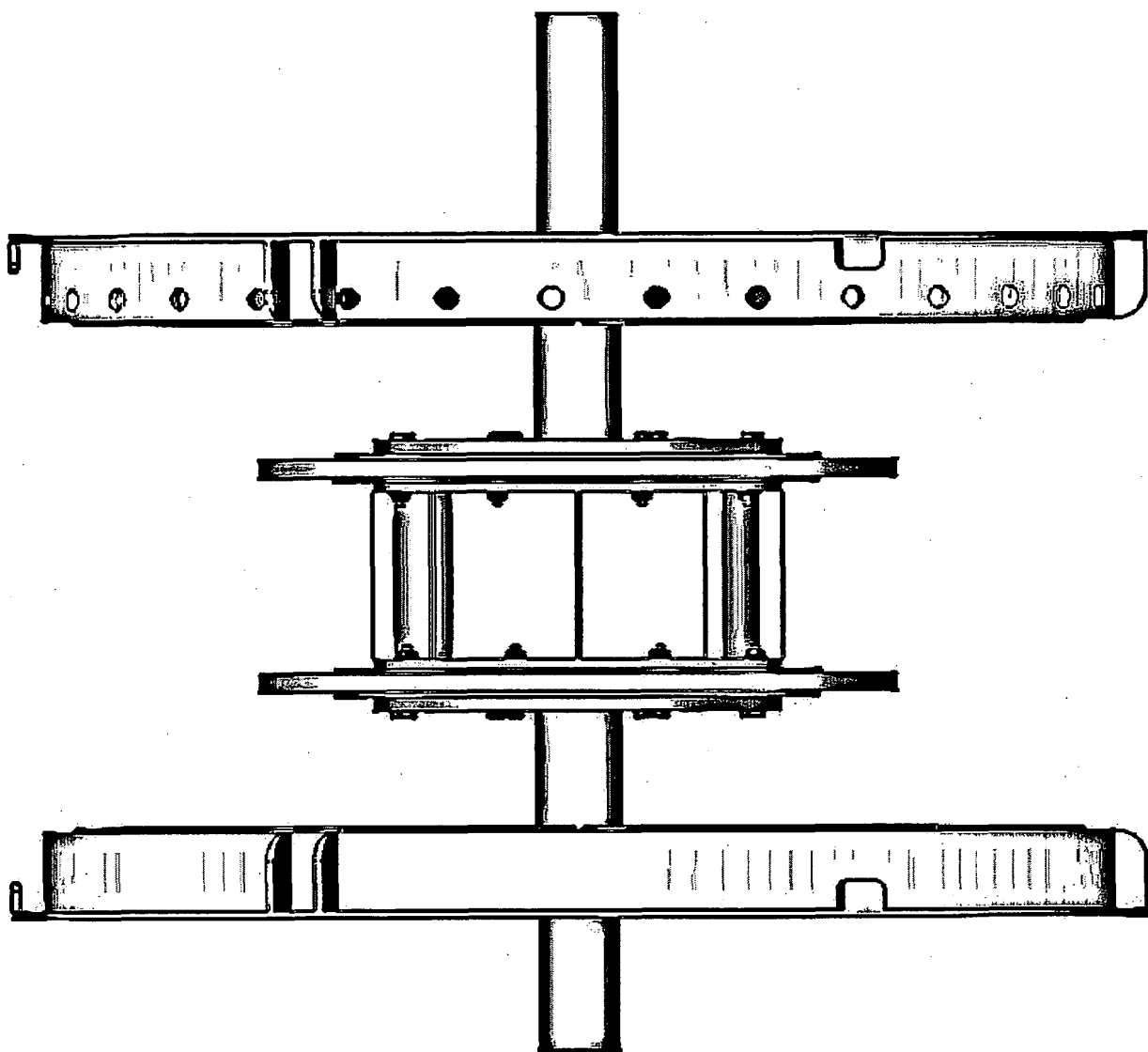


FIG. 41

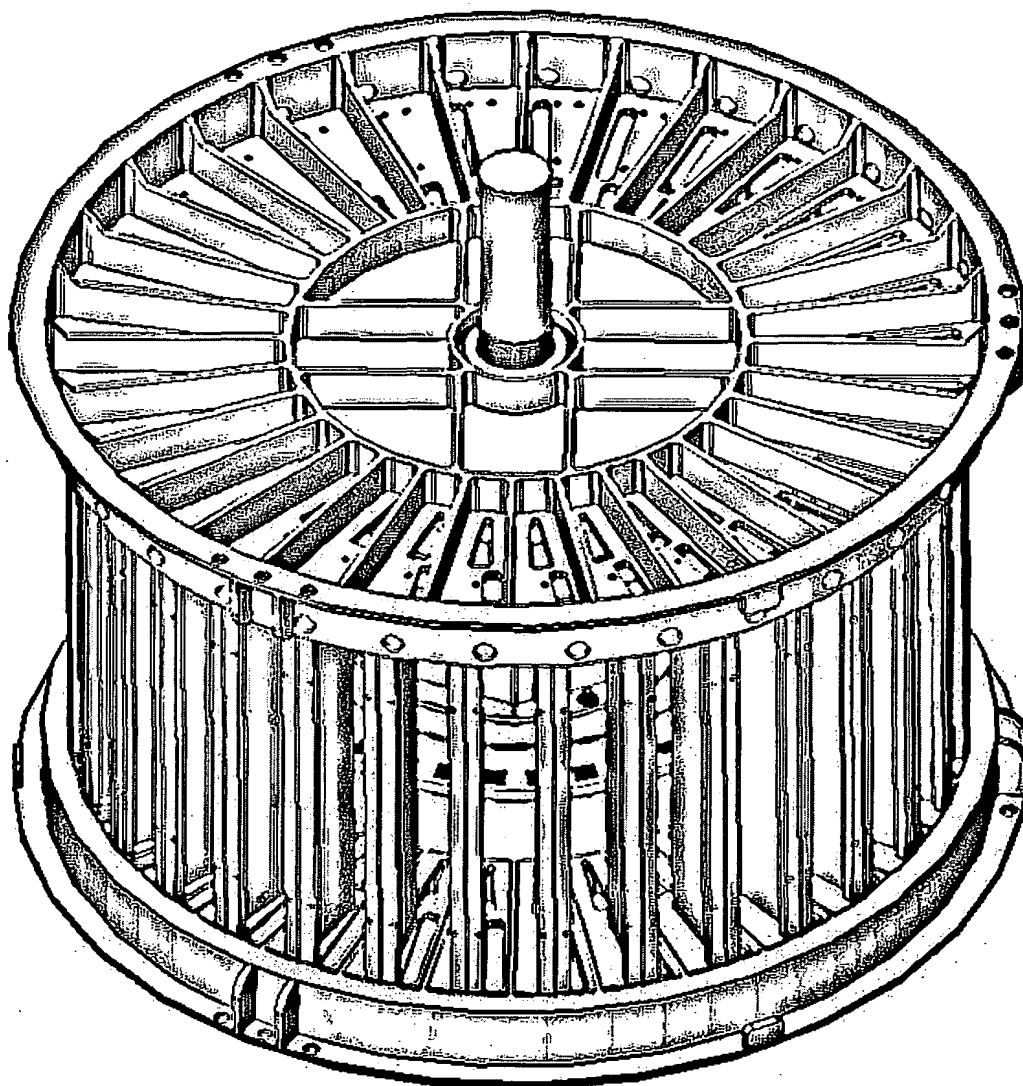


FIG. 42

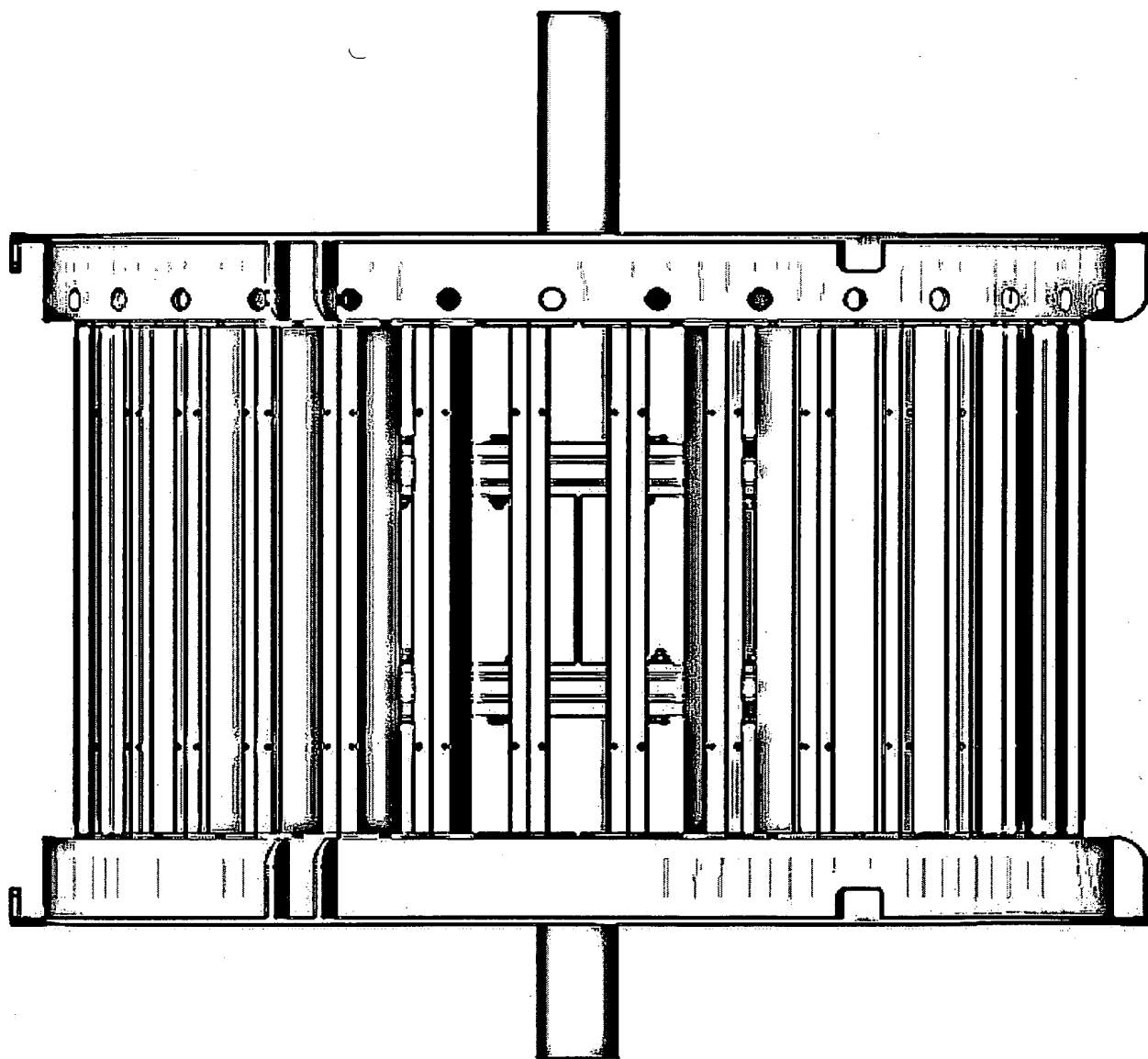
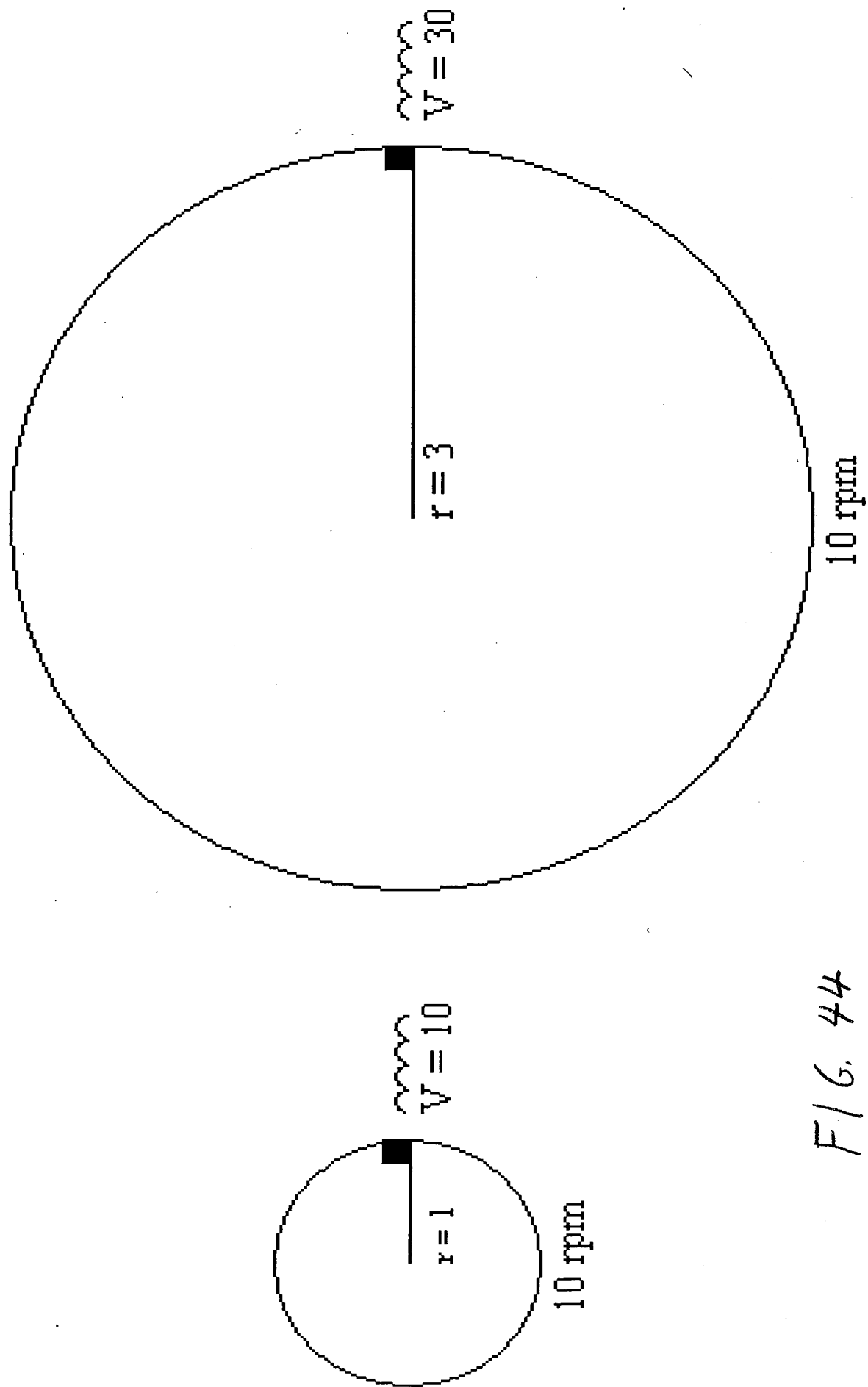


FIG. 43



F/G. 44

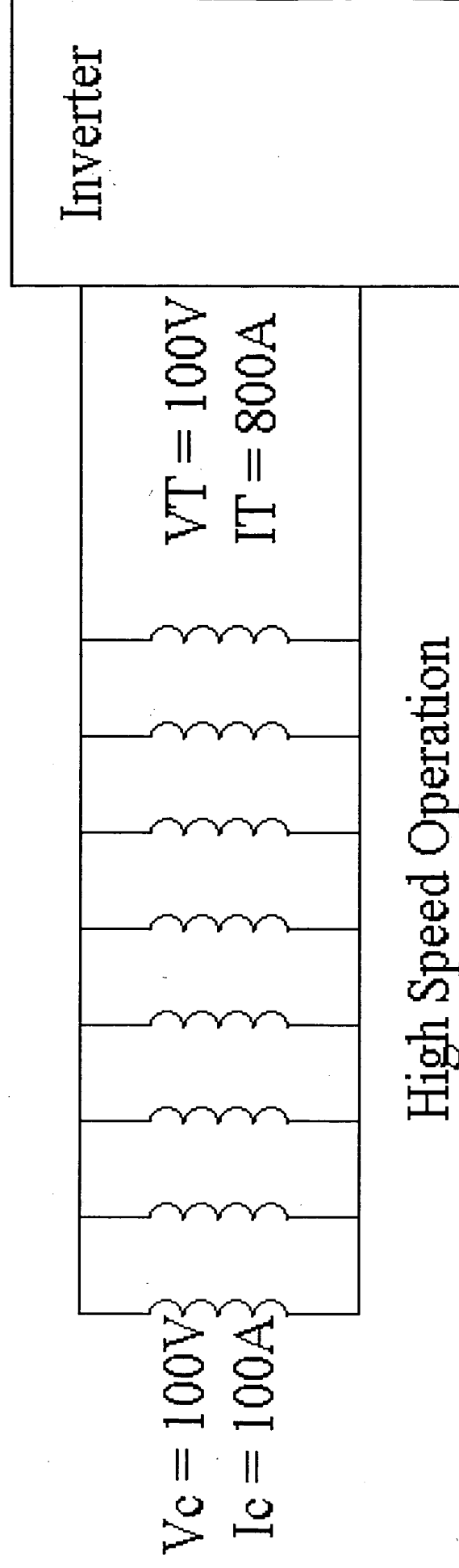
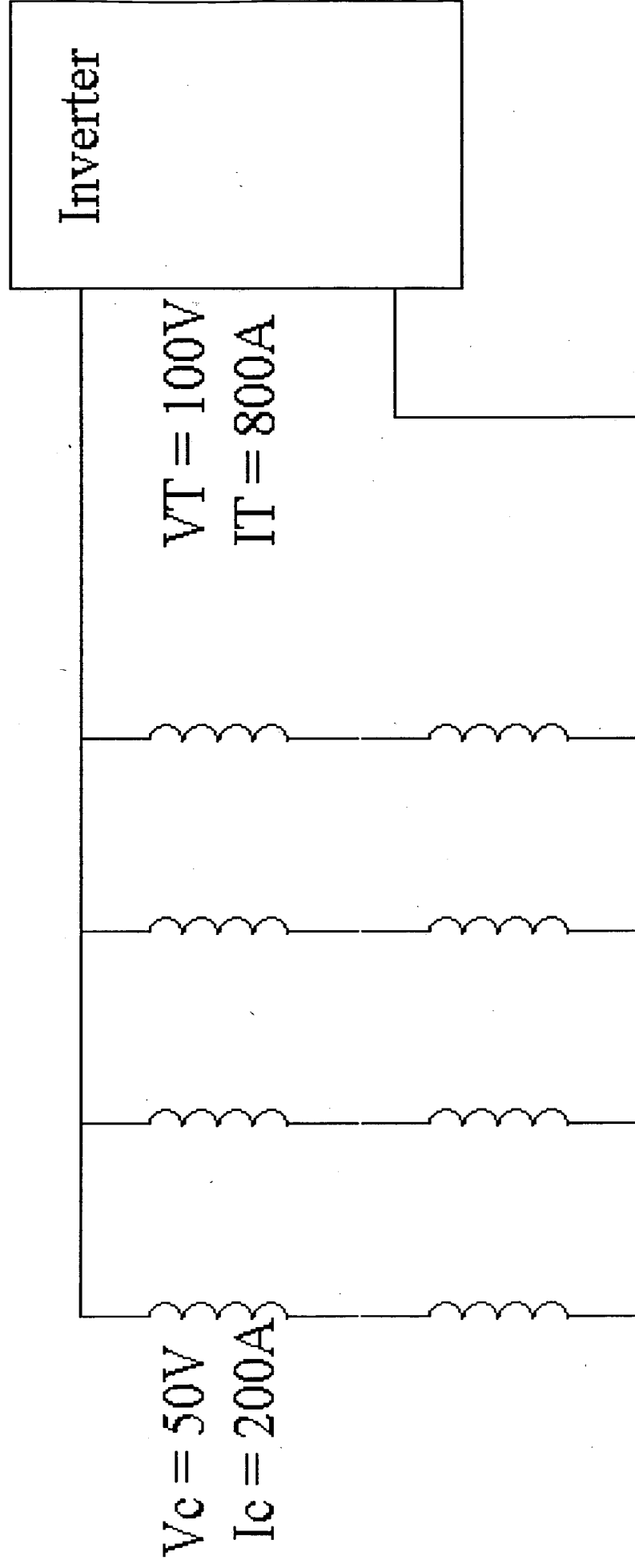


Fig. 45



Med High Speed Operation

F/G. 46

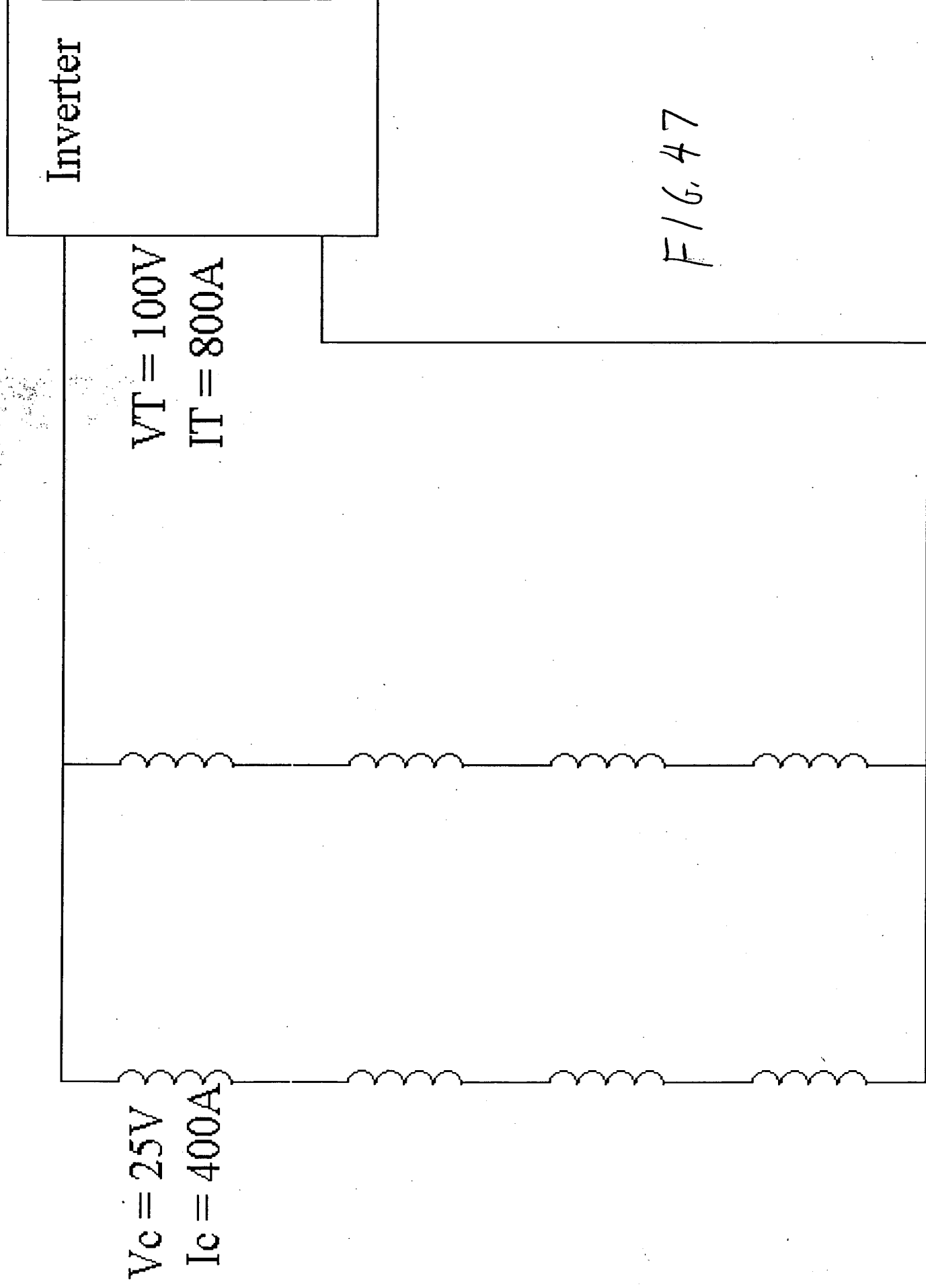


FIG. 47

Med Low Speed Operation

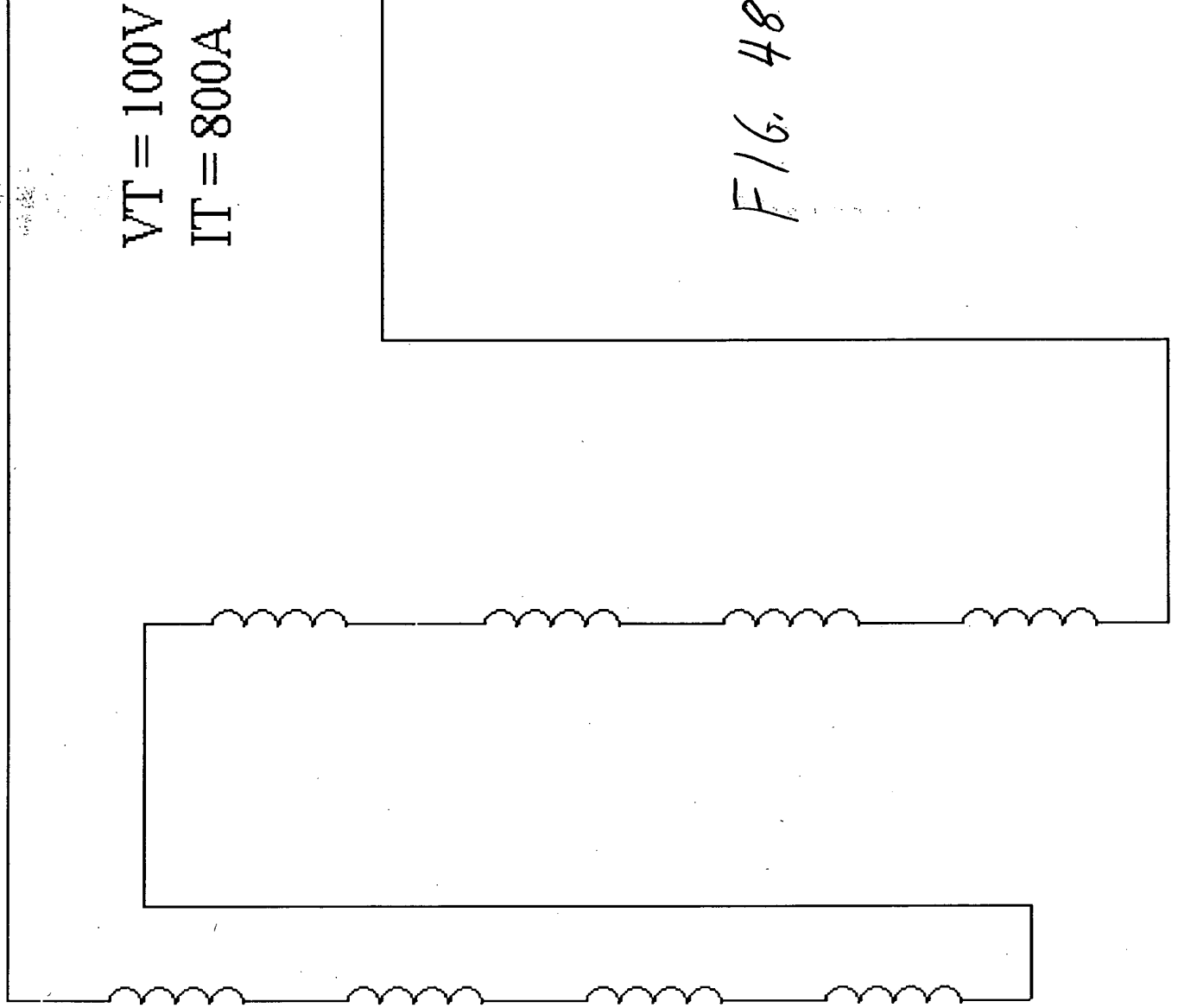
Low Speed Operation

Inverter

$V_c = 12.5V$
 $I_c = 800A$

$V_T = 100V$
 $I_T = 800A$

FIG. 48



peak voltage
RMS voltage

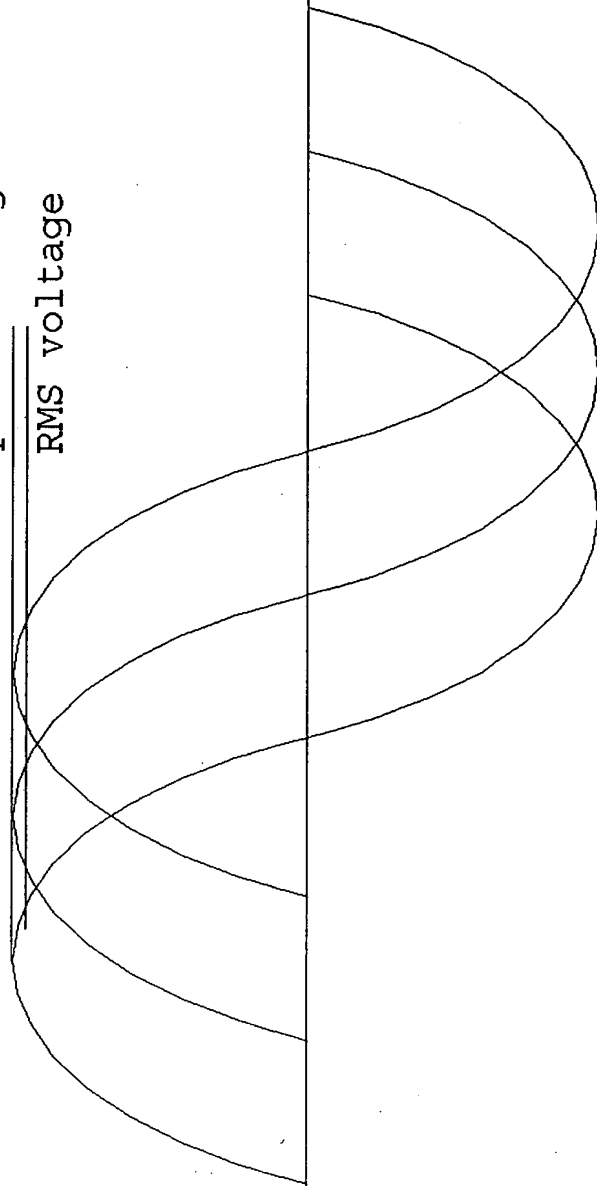
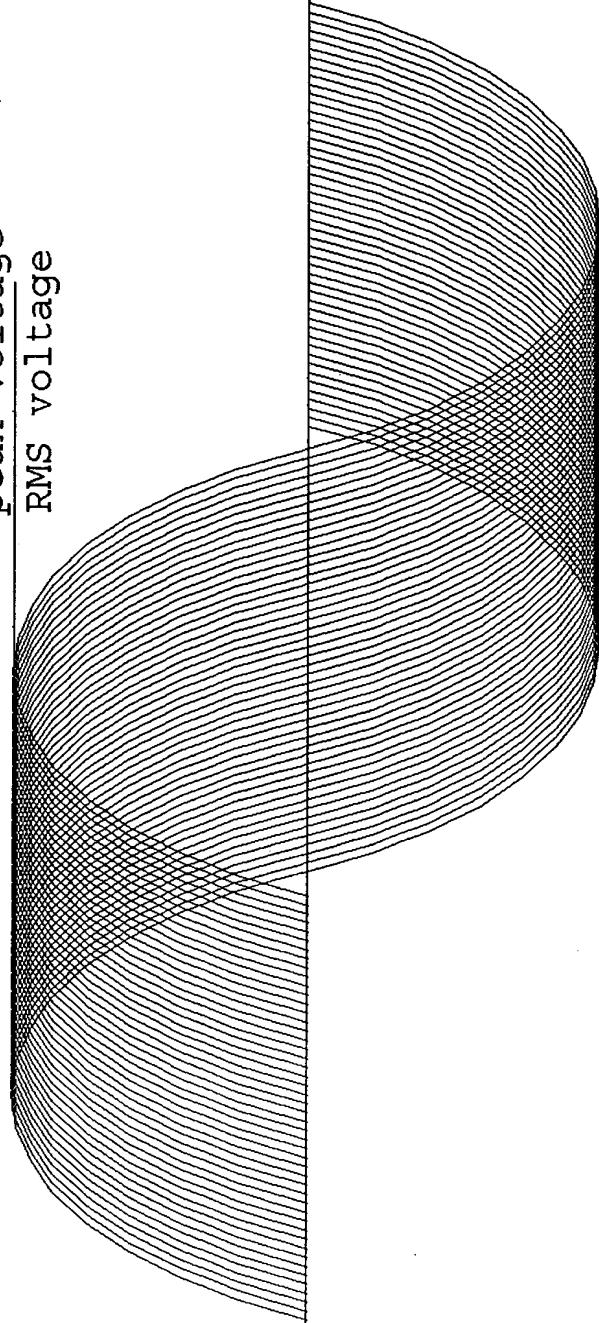


FIG. 49

$\frac{\text{peak voltage}}{\text{RMS voltage}}$



F16, 50

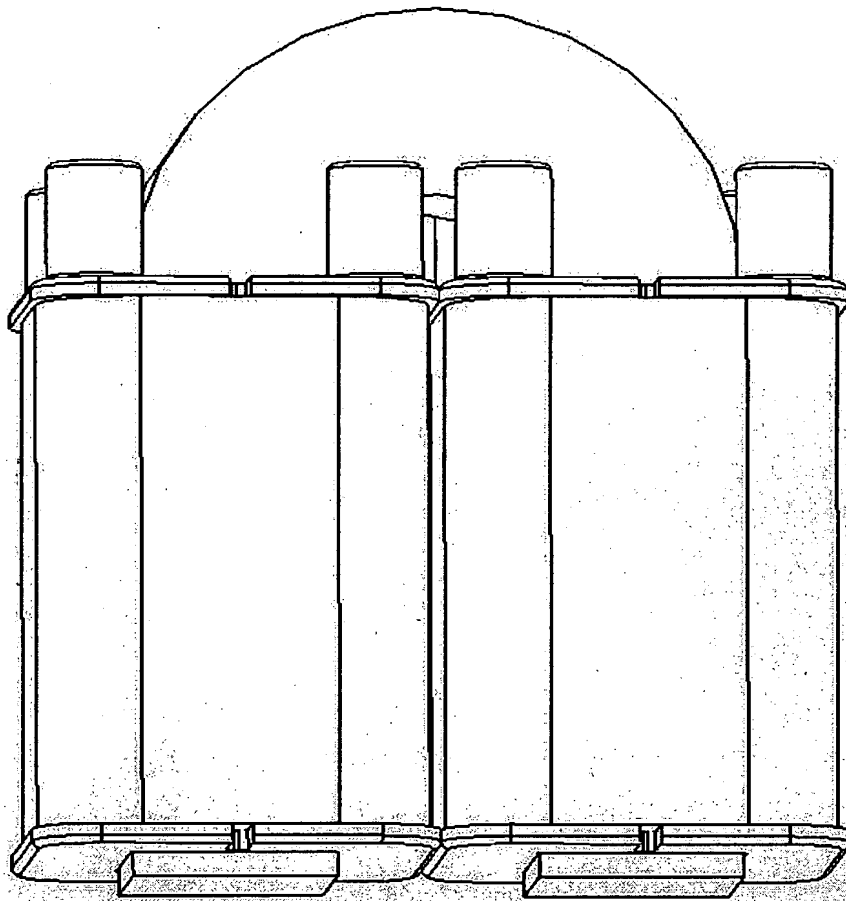
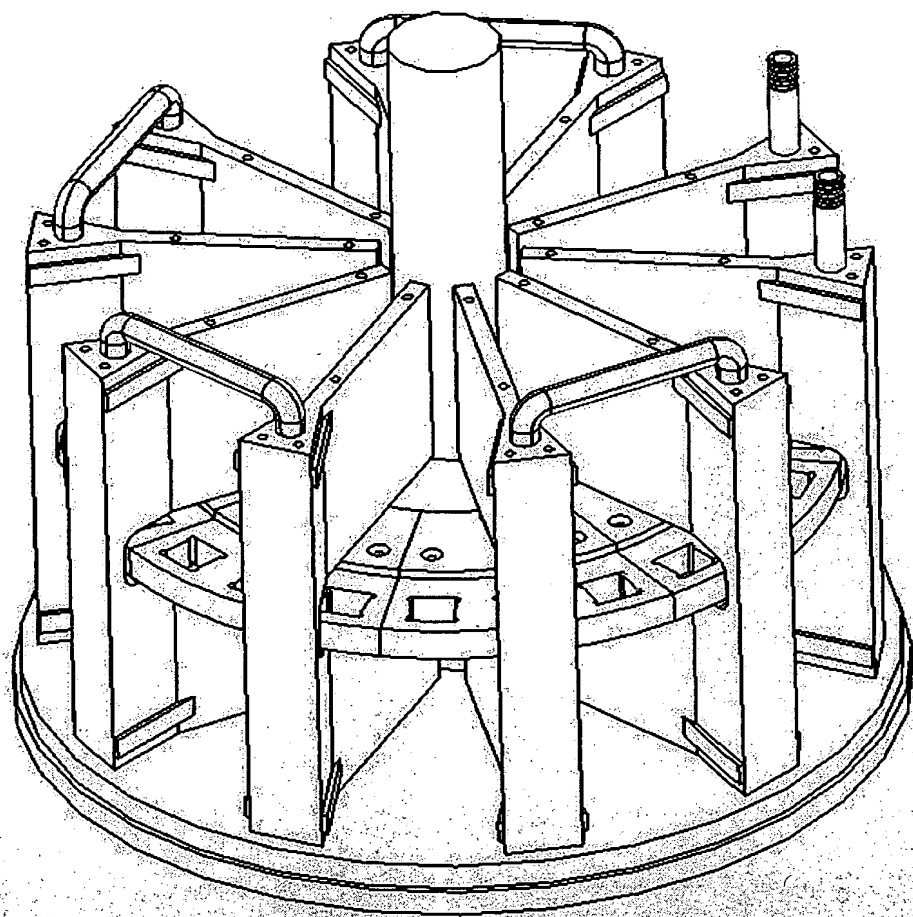


FIG. 51



F16. 52

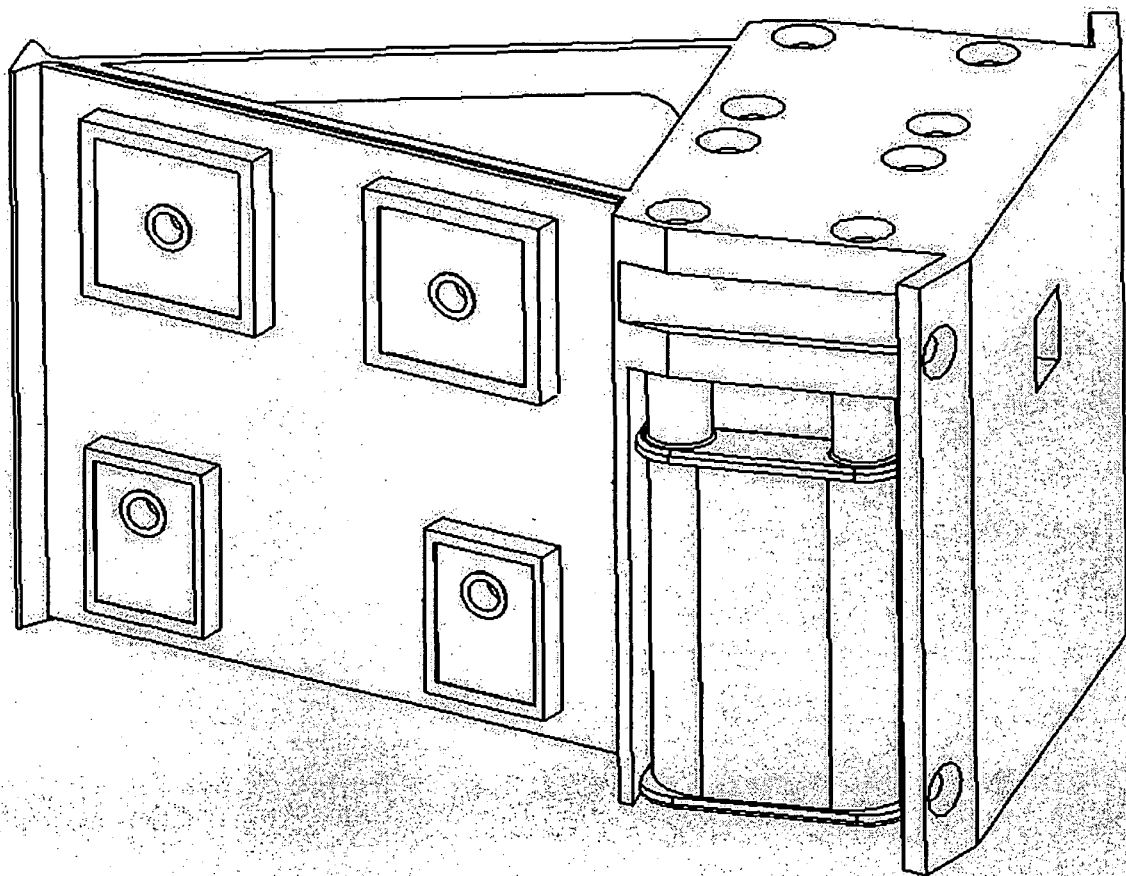


FIG. 53

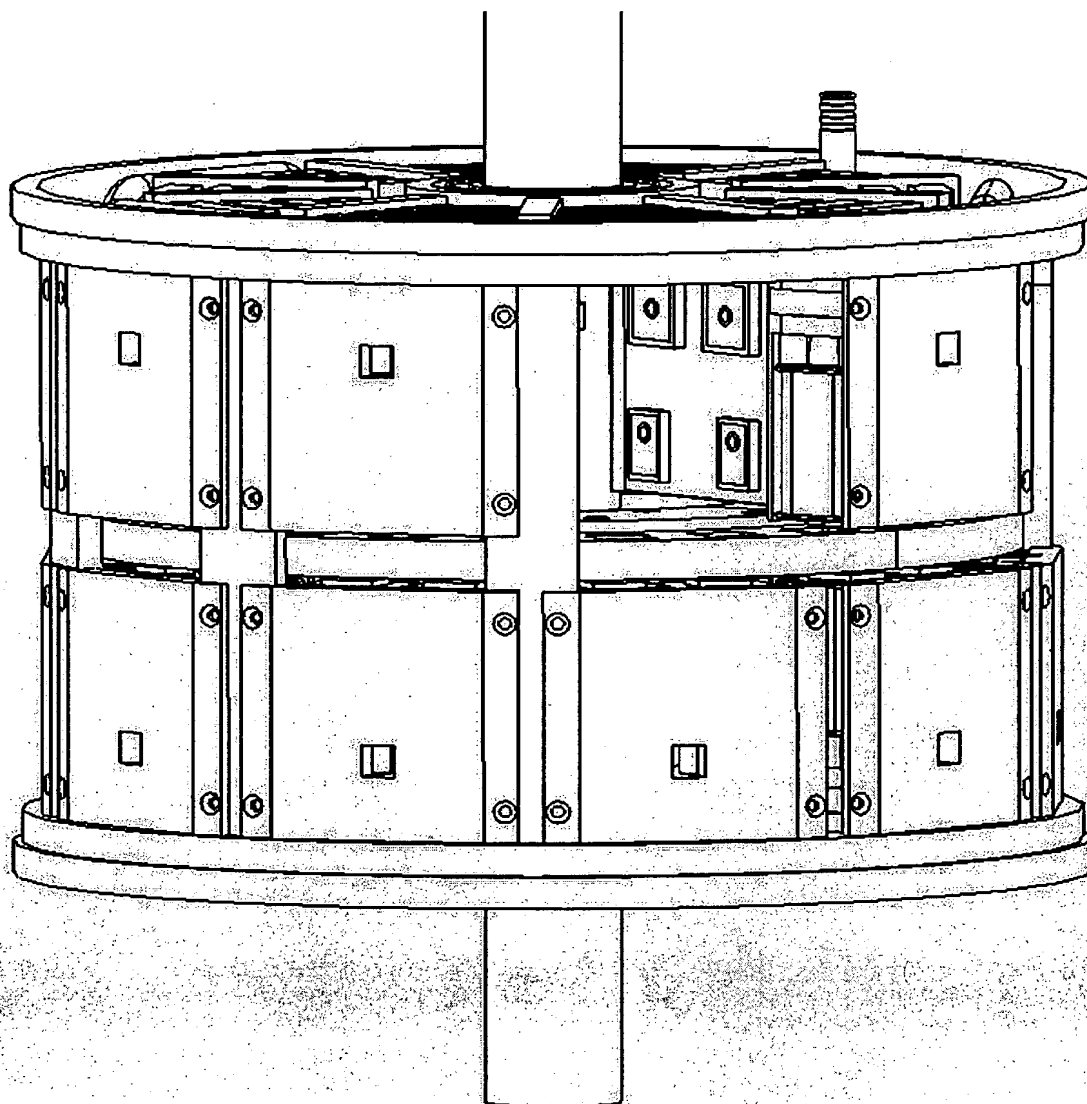


FIG. 54

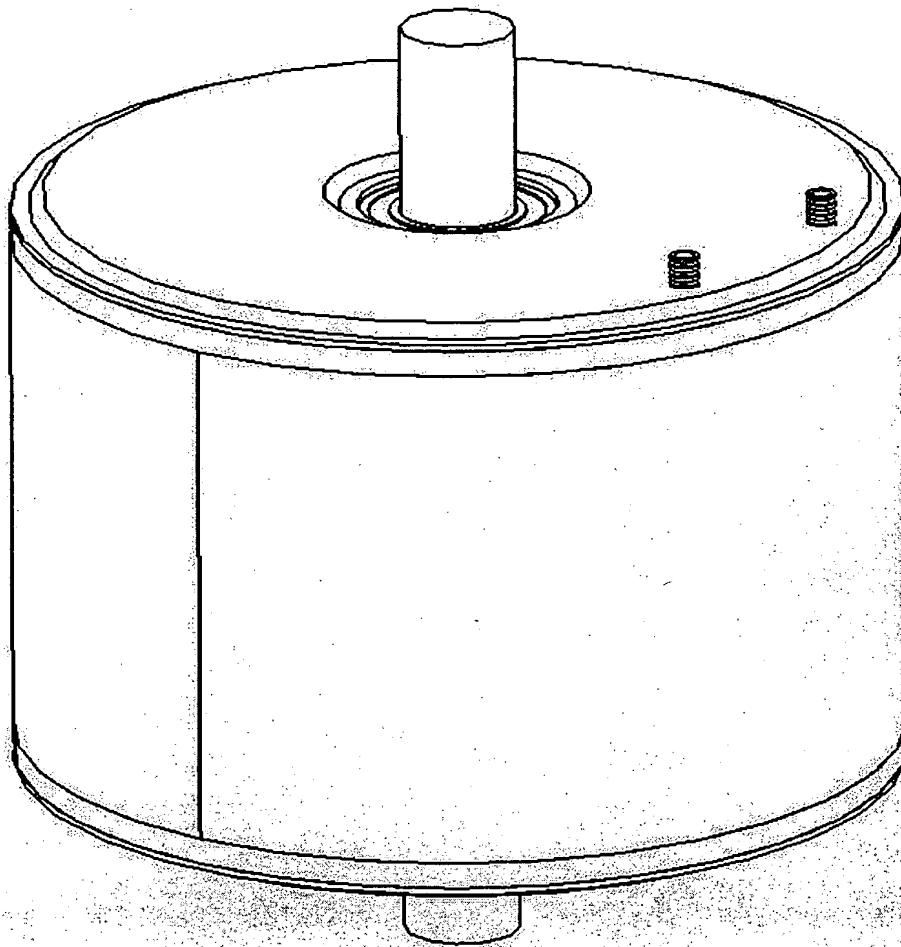


FIG. 55

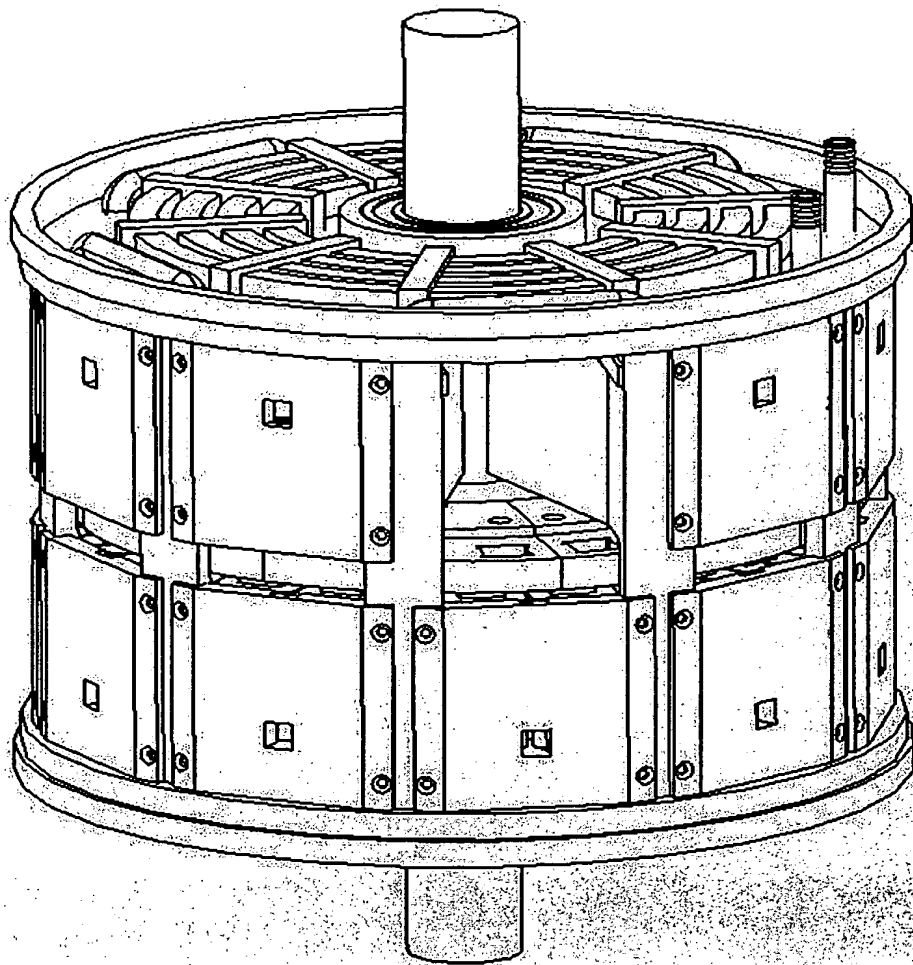


FIG. 56

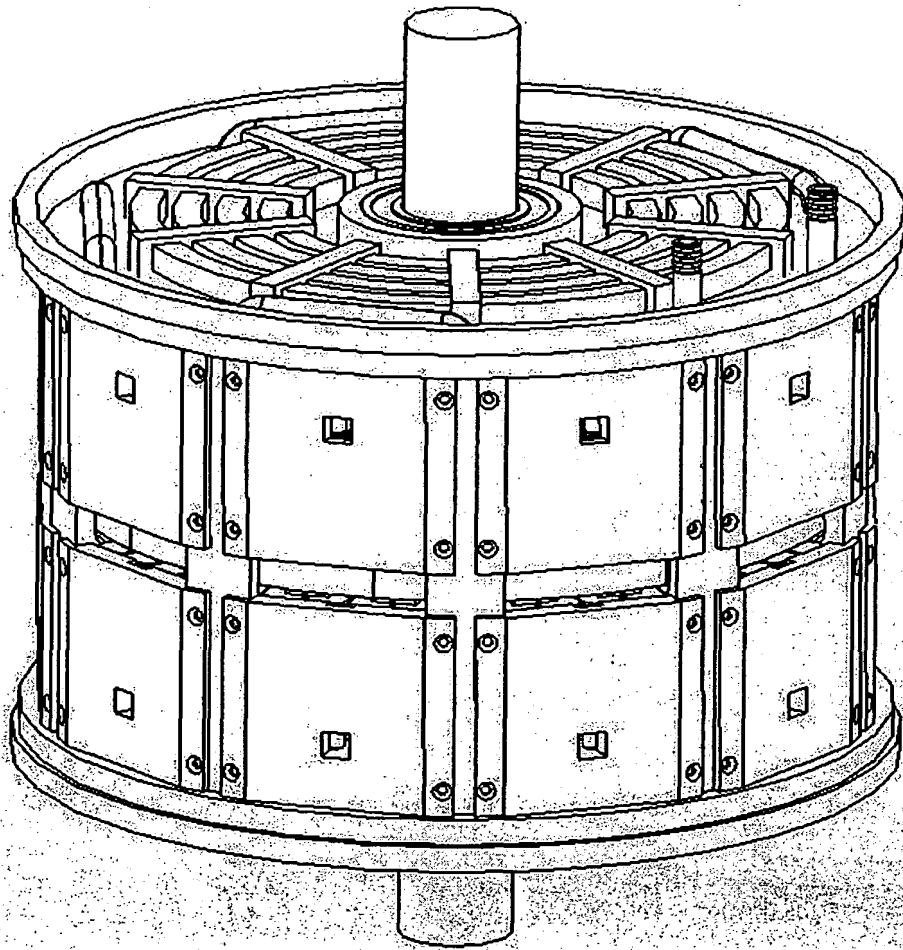


FIG. 57

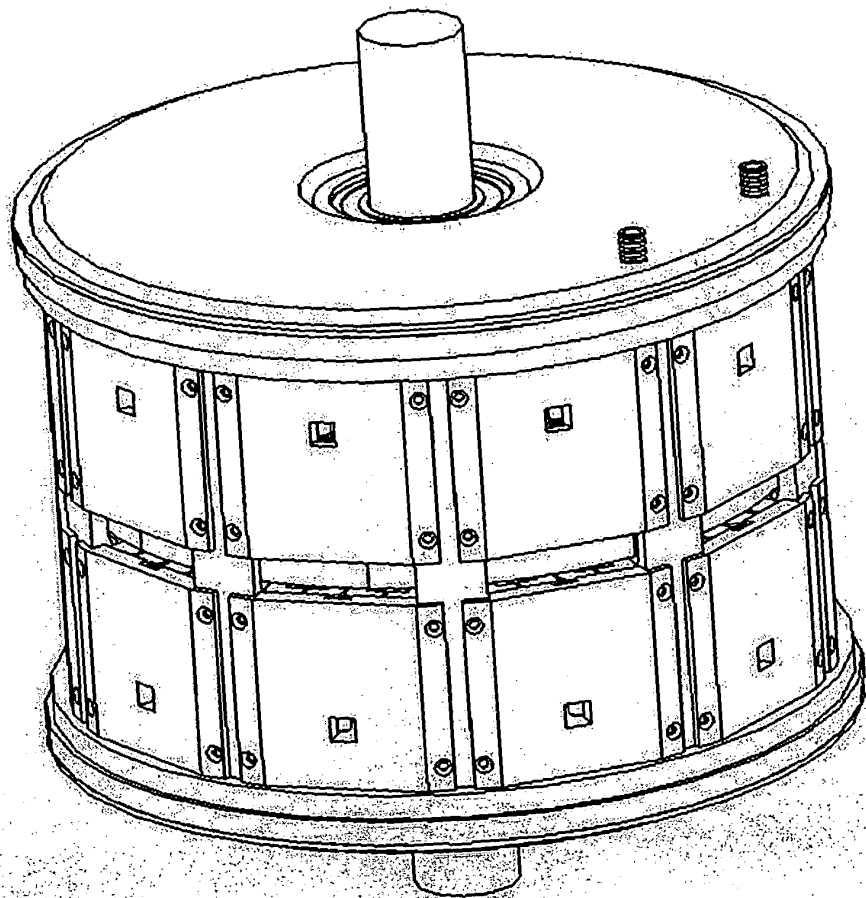


FIG. 58

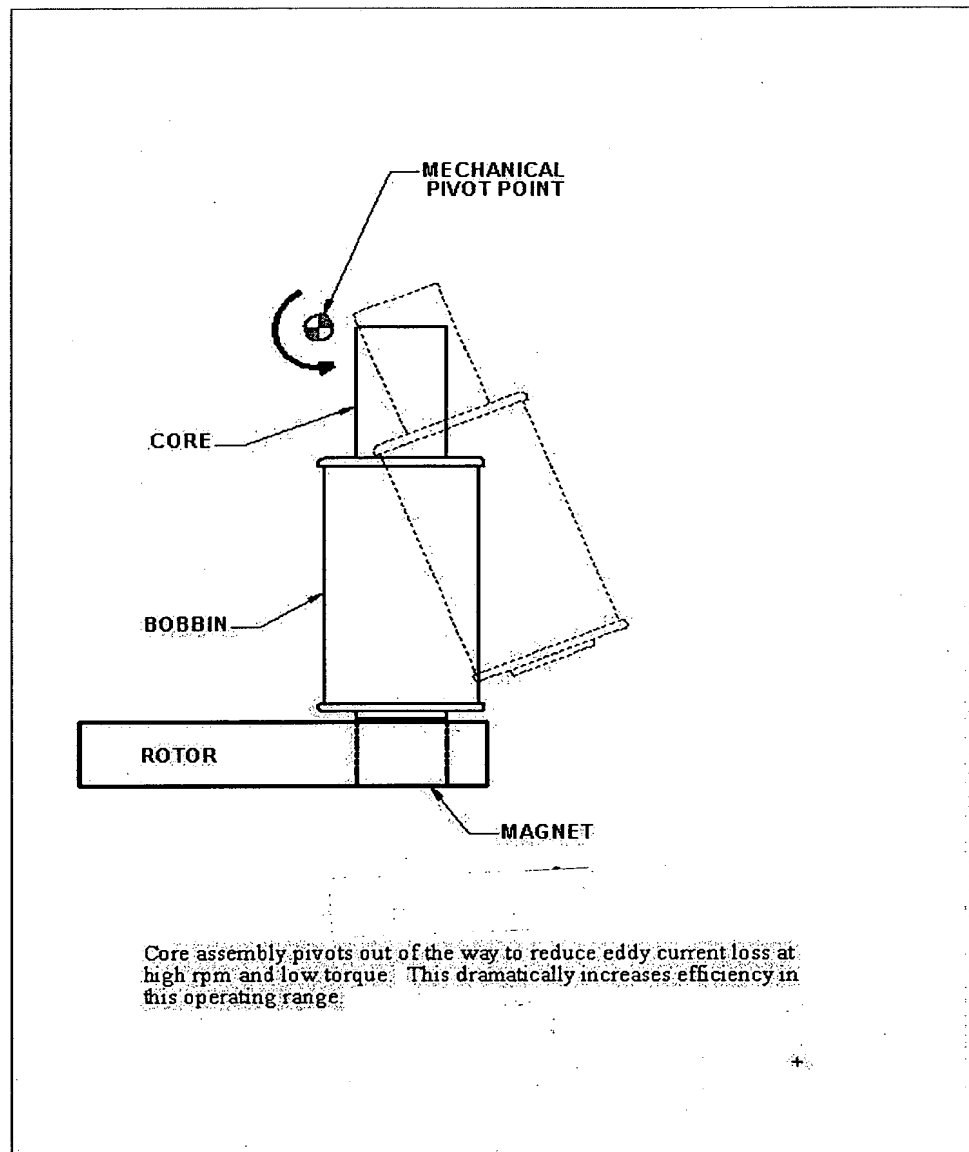


FIG. 59

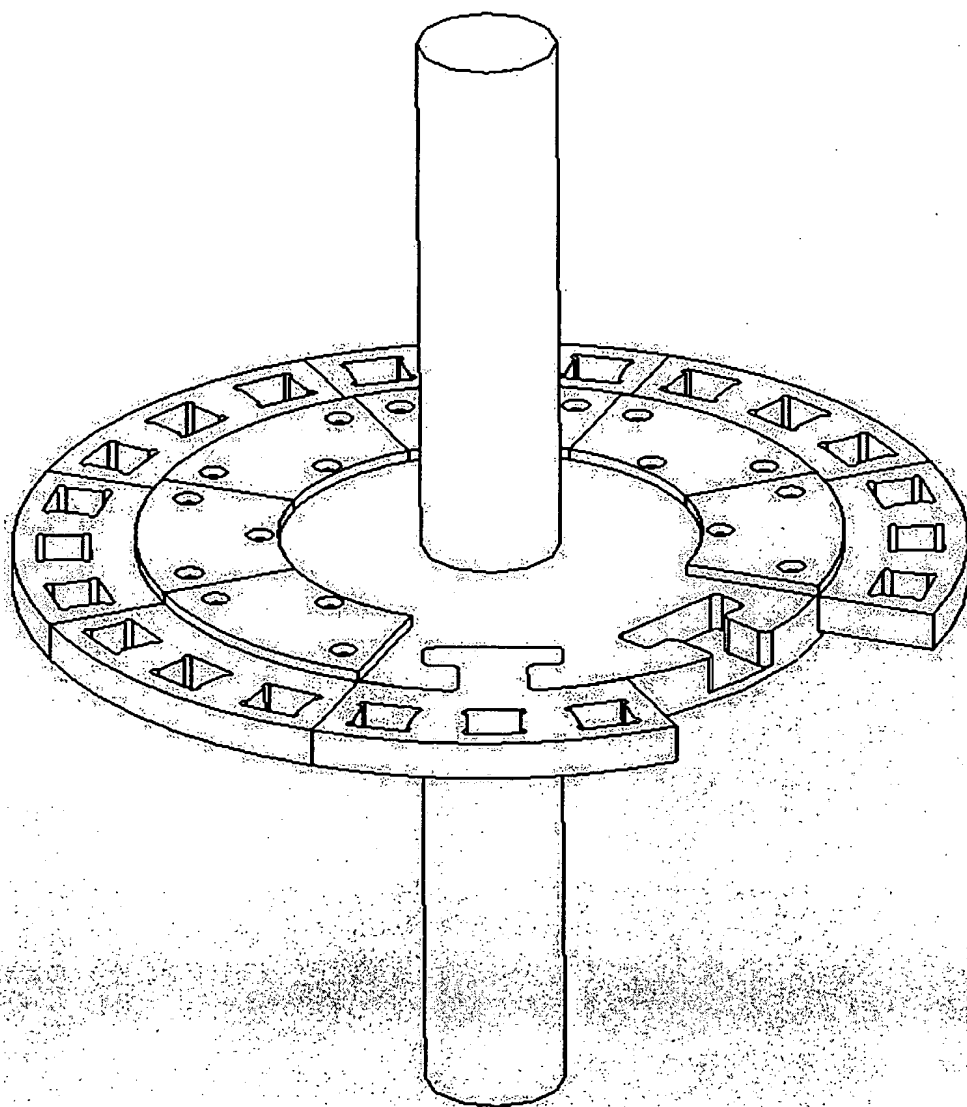


FIG. 60